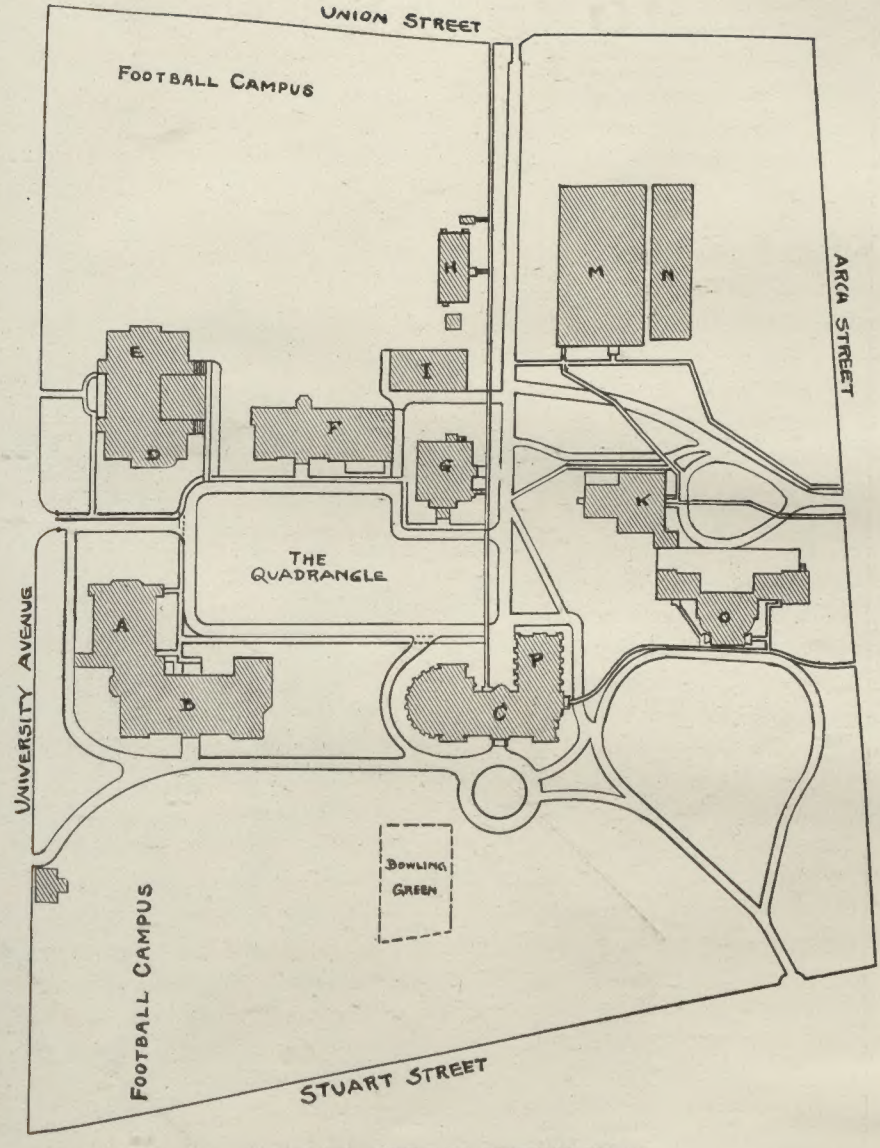


PLAN OF QUEEN'S UNIVERSITY.

A Grant Hall.
B The Kingston Building.
Arts.
C Theological Building.
Theology.
Biology.
D E Ontario Building.
D—Physics.
E—Mineralogy and Geology.
F Fleming Hall.
Engineering.
G The John Carruthers Science Hall.
Chemistry.
H The Mechanical Laboratory.
I The Mining Laboratory.
Mining and Metallurgy.
K The Medical Building.
M Skating Rink.
N Curling Rink.
O Residences.
P Convocation Hall.

(*Bird's eye view on other side of this sheet.*)

ONTARIO HALL.

FLEMING HALL, CONCEALING THE MECHANICAL LABORATORY.

THE MINING LABORATORY.

THE JOHN CARRUTHERS SCIENCE HALL.

MEDICAL BUILDING.

THE RESIDENCES.



GRANT HALL.

THE KINGSTON BUILDING.

THEOLOGICAL BUILDING.
(FORMERLY ARTS AND THEOLOGY.)

QUEEN'S UNIVERSITY.

From a Sketch by Professor Shortt.

QUEEN'S UNIVERSITY JOURNAL

VOL. XXXII. JANUARY 16th, 1905. Endowment Number.

To the Friends of Queen's:—

AS Chancellor of Queen's University, I have felt it incumbent on me to place before the entire constituency of Queen's the following brief explanation. The unexpected action of the General Assembly at Vancouver in 1903 and at St. John in 1904, affords proof of the re-awakening of an intense interest and feeling in favor of the aims which inspired the founders of Queen's.

The Presbyterians of Canada, following the tradition of their fathers, have always sought to foster liberal education. Nearly three quarters of a century ago the Scotch settlers began a movement which eventually led to the establishment by Royal Charter at Kingston of a seat of learning, where education, while not divorced from Christian influence, would be open to every Canadian of whatever race or creed.

Some years later a grave division, known as the Disruption, arose in the Mother Church in Scotland, and spreading to Canada interfered seriously for years with the work and progress of the University. This difficulty is now happily ended, and at least in this country the Church has again become one. In more recent years the progress of the University, owing to the foresight of its founders and the wise guidance of far-seeing men, has been distinctly gratifying. Evidence of its rapid development may be found in the steady increase of students and the yearly necessity of enlarging the staff of Professors. At the date of the Disruption there were in all 13 students in attendance under three Professors. At present the students number 897 and the teaching staff has been increased from three to sixty-four. With thirteen students a small frame dwelling afforded sufficient accommodation. There are at the present time nine buildings, which form an imposing group within a spacious college park of twenty acres. A special interest is attached to the last building, completed only a few weeks ago. It stands on the western side of the quadrangle,, and its lofty campanile adorns the whole group. On November 7th the students, numbering with their friends more than two thousand, assembled within its walls to present it formally as a free gift to the University, and to ask that it be dedicated as a Memorial Convocation Hall in honour of Principal Grant. The erection of this magnificent Hall resulted from a spontaneous movement of the students who earnestly desired to express in this form their regard and affection for their late beloved master. The building was formally received from the students, was solemnly dedicated, and will be known as Grant Hall. It is a fitting monument to the memory of a man who, imbued with the spirit of the founders, laboured to carry out their patriotic aims. It is a tribute of affection for one who was an inspiration to the graduates, and has left behind him an influence for good which will long endure.

I may be allowed to allude to one other building which has come into use within the last two years. Its origin is unique, being the gift of the City of Kingston as a municipality. Other buildings within the college park owe their existence to private beneficence, but the funds in this instance were granted by public vote of the whole people of Kingston. The vote was given with substantial unanimity, a majority coming from every ward in the city. What higher testimony could be proferred to Queen's? What better evidence that her teaching has always been carried on without any tinge of sectarianism? This building must itself be regarded as convincing testimony to the broad catholicity of Queen's. Equally it bears testimony to the intelligence and character of the citizens among whom so many students find homes. No other city in Canada has such a record. Kingston is probably the first municipality within the Empire to erect a University building.

I have touched on two instances only of the virility and powerful influence of Queen's, but they indicate among other things the esteem in which she is held by those who know her best, and should go a long way to satisfy the people of Canada at a distance as to the character and value of the work done and the position held by Queen's in the life of this young nation.

Nearly all European Universities owe their parentage to the Church. Queen's owes its origin to the Presbyterian Church in Canada, which to-day is represented by the General Assembly. For years Queen's has received but little countenance from the Assembly. She has had to work her own way, but the struggle has developed her powers and proportions. If the mother until recently had almost forgotten her offspring, there is now a happy re-union, and the child is again enthroned in the affections of the parent. The General Assembly on behalf of the now undivided Church has spontaneously given its complete approval of Queen's. It has recognized that the trust imposed by the early Presbyterian pioneers has been faithfully administered by her, and that the spirit of the founders has been transmitted to her alumni. It recognizes with satisfaction the extent and character of the work done and the high importance of the University. It evinces entire confidence in the organization of Queen's, desires no change, and suggests only that larger control be given to the graduates. It sees that a larger revenue is required, recommends the initiation of a movement to obtain it, appoints a strong committee for that purpose, and heartily commends the object of the movement to the liberality of the members of the Church, and to the cordial sympathy and support of Presbyteries and congregations. In a word, the Assembly representing the progenitors of the University seeks only to remain her greatest benefactor and share more directly in her aims.

I have in these few words set forth the incalculable good which has resulted from the public-spirited efforts of our Presbyterian forefathers in the first half of the last century. I have pointed out what Queen's is doing and alluded to the spirit bequeathed to her. The General Assembly is the heir of the founders of Queen's, and the University with profound gratitude and thankfulness welcomes the overtures which the Assembly has recently placed on record.

—SANDFORD FLEMING.



INTERIOR OF CONVOCATION HALL (From the Gallery).

Queen's University Journal

Published by the Alma Mater Society of Queen's University in Twelve Fortnightly Numbers during the Academic Year.

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Editorials.

OUR readers will see that this number is almost wholly devoted to presenting a picture of the University as it is to-day. This is done in order that many beyond the circle of our regular constituency may become familiar with Queen's. The General Assembly, speaking for the Presbyterian Church, recently urged the college authorities to initiate a movement for securing an additional endowment of half a million dollars, and appointed a large and representative committee to co-operate with them for this purpose. By way of assisting this effort, it is most desirable that the fullest possible information regarding Queen's should be disseminated not only among members of the Presbyterian Church but among all who may be expected to take an interest in the University. Hence, it has been decided that the present issue should take the form of an "Endowment Number," in the belief that its contents may not only prove of deep interest to the readers but may help to secure their sympathy and support for the Endowment movement.

Needless to say, the editors of the JOURNAL, in common with all their fellow-students, are intensely interested in all that affects the welfare and progress of the University and shall be prepared in every possible way to further a movement which means the increased efficiency of their Alma Mater.

IN this bird's-eye view of Queen's the things that are invisible are after all the most important, so that the reader will second the photo he looks at and the description he reads with understanding and with imagination. He is asked to see that this building is no building and this apparatus no apparatus, but that, like the Lyceum or Academy of Athens, they are together an industry for the production of the men and women to whom is now and is yet to be intrusted the well-being of our young nation. It is a serious undertaking, and no one willingly assumes the role of a prophet. But if we could "look into the seeds of time and say which grain would grow and which would not," we would venture the prediction that this enterprise is a profitable investment in the highest sense. What is here written begins with wise words from our Chancellor and closes with an appeal from our Principal, and what lies between has all the weight and authority which can be given it by the University. It has a tone of confidence but not of boasting, of loyalty but not of fanaticism, and we hope it is as far from jealousy of any sister institution as it is from subservience.

QUEEN'S OF TO-DAY.

THE "gentle reader" will imagine himself to be mounting the little slope which conducts to the College from the Arch Street entrance to the grounds. He is about to pay the University buildings a visit for the first time and will require the writer, who may be represented as to features by a composite photograph, and as to apparel by a cap and gown of red, blue and yellow, for a cicerone. It will be, we trust, a pleasant half hour, more pleasant, perhaps, in some respects than an actual tour of inspection. For instance, you were not compelled to stoop just now in order to avoid the fir-tree's branches laden down with snow. Nor will you require for your comfort to put your winter garments on and off as you pass out and in. You stand in no fear of facing a battery of several hundred eyes, as you make your way through the halls. The odours and vapours of the laboratories of the John Carruthers Hall gain enchantment by distance, and the roar of the Stamping Mill does not conduce to conversation. In point of fact, too, you would find many of the class-rooms occupied, and the noise penetrating through the closed door may not be any more charming than the "lautes Geschrei" of Professor Gans of Berlin, which, unless Heine is having his usual joke, carried all the way to Potsdam. You need not be silenced by the placard on the walls of the Consulting Libraries, "No talking allowed," nor be continually in terror of an introduction to Mr. This and Professor That. Therefore lean back comfortably on your divan, and spread out your slippered feet towards the cheerful hearth fire and we will begin, if you please, our journey.

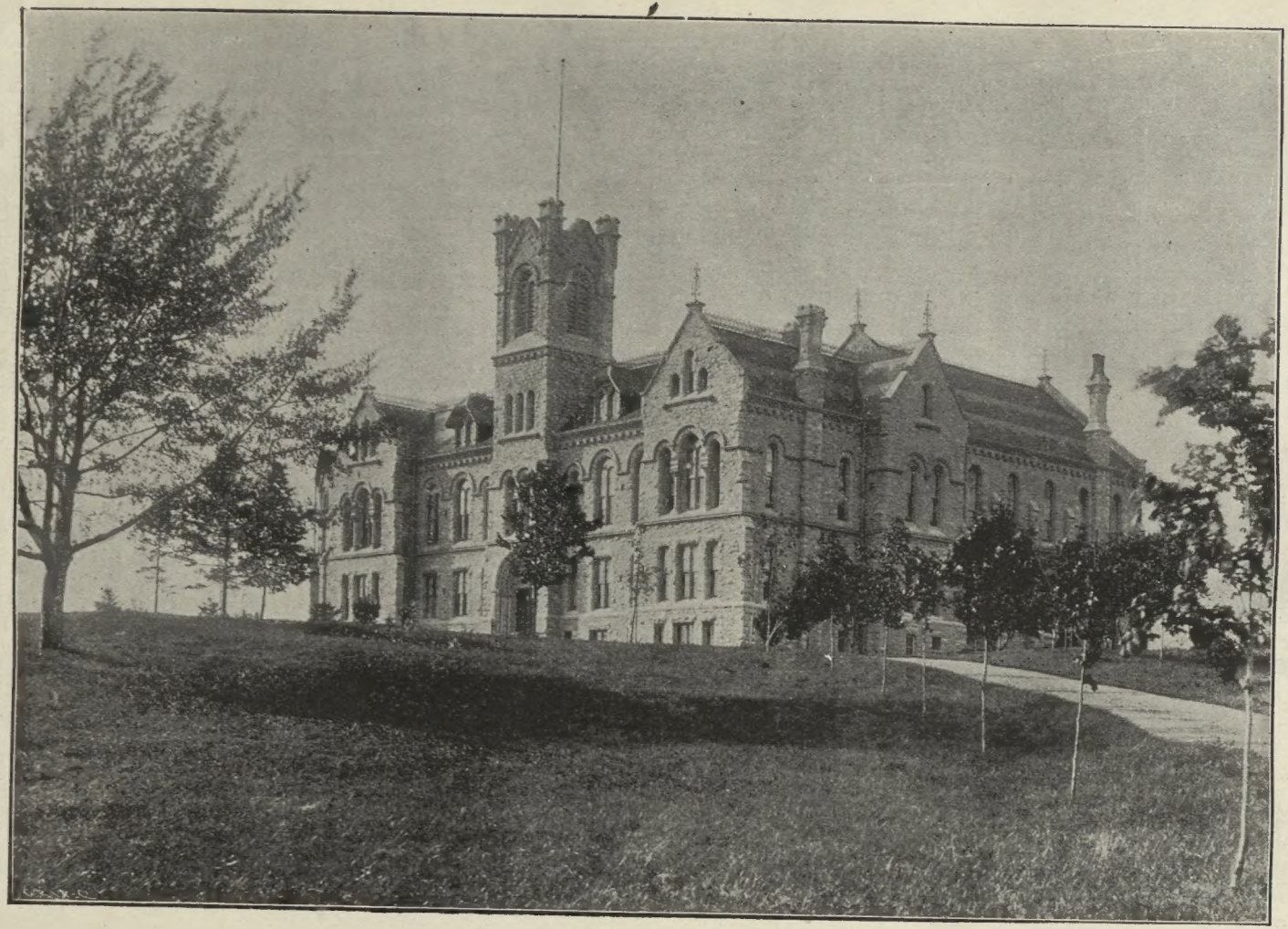
THEOLOGICAL BUILDING.

*Theology.

How is one to tell in a single page what Queen's does for those who study Theology within her walls? How can a deep, spiritual process which is the work of years be made clear on paper? When a man has sat at the feet of those who have given him new insight into the things that are unseen and eternal how is he to express his gratitude? In the space allotted I must try to answer briefly the question, What is theology at Queen's?

All the subjects that are usually found in a theology curriculum are taught, Systematic Theology, Homiletics, Church History, Old and New Testament Exegesis, Apologetics, etc. Principal Gordon, Dr. Ross, Dr. Jordan and Prof. Macnaughton are the regular professors, and this year we have in addition Dr. McRae, formerly Principal of Morin College, Quebec. Dr. Milligan comes for a few weeks every year to give special lectures on Homiletics. Most of these men are so well known to Canadian Presbyterians that nothing need be said of them. The most recent appointment is that of Prof. John Macnaughton who now occupies the chair of Church History and makes his lectures quite as interesting and instructive as it was generally expected he would succeed in doing. Dr. Jordan, though not restored yet to perfect health, continues to make his class attractive to all and the Old Testament

*For staff and other particulars see inside front cover.



THEOLOGICAL BUILDING.

a source of new life and inspiration for those who wish to deal with the deepest things in human nature. So long as we have teachers of this spirit and equipment there will be no lack of theological students in Queen's.

When a man graduates in theology he feels that his course has extended not over three years but over seven. It began on the day he entered the Arts faculty. Theology and Arts are so compactly built together, so interwoven, that for the Queen's man the combination means a fresh interpretation of both of its constituent elements. The study of literature is more sacred, the study of theology more promising than he had ever dreamed. Theology is taught in Queen's, not by an affiliated school, but by a faculty of the University, and this fact is only one expression of the whole spirit of the place. Theology is not regarded as a dry and unprofitable thing even by students of other faculties; it is recognized as offering abundant scope for the noblest energies of the best men. When a man graduates in Arts and enters Theology he does not feel that he has made a break with the past. He has only taken a step forward. He is still a member of the same Alma Mater Society, still takes part in all that interests the student-body, still finds himself called upon, only more frequently than before, to fill important offices in the gift of the student-body.

Only one disaster could come to Queen's so far as her theological students are concerned, if through lack of financial support the Arts faculty became weak, and she could not continue to produce the stamp of graduate in Divinity who now goes forth from the Hall. It is the pride and glory of Queen's that all her students are made to see that there is no contradiction between the intellectual and the spiritual, that all work is sacred and that all men must work for the up-building of the kingdom of Jesus Christ. Surely this is a type of Christian, not to say of theologian, which is worth preserving in Canada.

Animal Biology.

The course in this department extends over three sessions, one in pass and two in honours. The pass class is common to both Arts and Medical students, but is optional for the former and compulsory for the latter. The medical student takes the physiology, histology and embryology of the honour course simultaneously with the honour student in Arts; but does not take the morphology and general biology.

The equipment for practical physiology teaching and for histology is fairly adequate, but there is great need of adding to the museum equipment. At least $5,000 are required for this purpose.

Next to providing additional specimens for the museum the great need is for an assistant to take charge of the teaching of systematic zoology.

The attendance has quadrupled in ten years, and as a consequence the Trustees have allocated to the department all the space in the Theology building that was originally assigned to the whole of science,—physics, chemistry, botany, zoology, geology and mineralogy.

1. A laboratory for practical instruction in histology, a cut of which appears on the next page.

2. A laboratory for instruction in practical physiology.

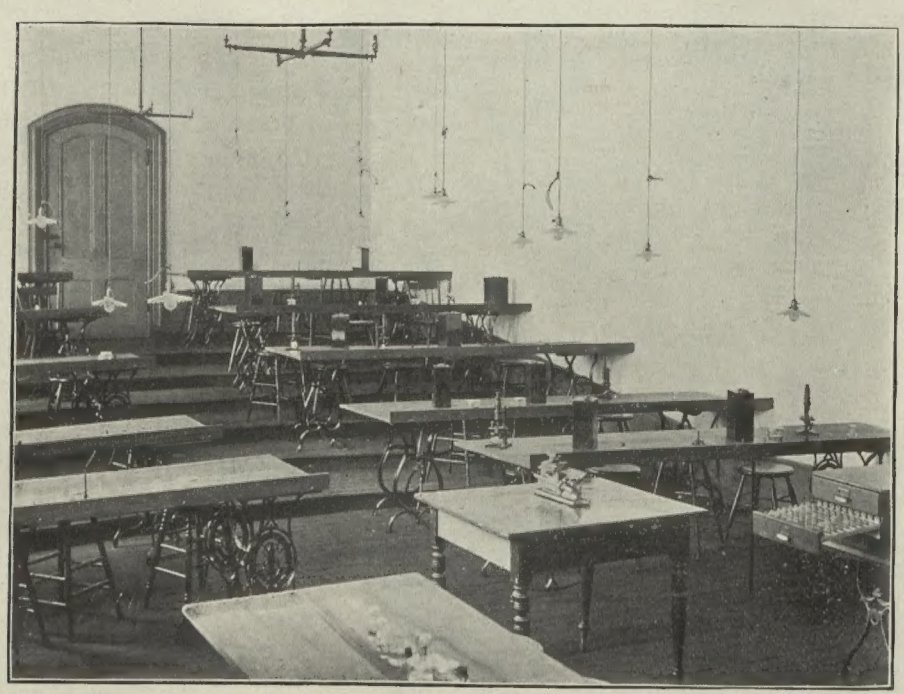
3. A laboratory for the preparation of demonstrations in physiology, histology, and embryology.

4. A room for lectures and recitations.

5. A dissecting room for comparative anatomy.

6. An apparatus room.

7. A private research laboratory.



HISTOLOGICAL LABORATORY.

Convocation Hall.

Compared with the Universities of Europe, or with Harvard or Yale, or with Laval or the University of New Brunswick, Queen's ranks only as a big baby just out of long dresses; and yet about its Convocation Hall if nowhere else there can be felt the air of the past. The portraits of men, whose lives have been built not only into its walls but into the character of generations of students, still advise the beholder that men are permanent forces, not "walking shadows" or make-believe players on a stage. Here are Dr. Liddell, pale of face; Dr. Machar, famed for his good works; the leonine Dr. George; Dr. Cook, both Principal and Chancellor; Dr. Leitch, the gentle; the forthright Dr. Snodgrass, and the imperial hero, Dr. Grant. Companions with them and fellow-workers are Mr. John Hamilton and Mr. Alex. Morris, chairmen of the Board of Trustees. To the silent majority, also, belong Dr. Williamson, "long known as the students' friend," the unforgettable John Mackerras, who bade his students carve their names not on the desks but in the calendar, the rarely patient Dr. Bell, Dr. Mowat, most exacting and yet most modest of Professors, and

the medical men, Dr. Fenwick and Dr. Saunders, whose names lent dignity and lustre to their profession. Still with us for many a long day, let us hope, are our two chief teachers and scholars, Professors Dupuis and Watson, of whom any university in the world might be proud, and our grand old man, Chancellor Sir Sandford Fleming, vigorous in spite of his many years, still constructively aiding and abetting the university in various ways.

The eye is caught, too, by a number of memorial and commemorative tablets, nine in all, keeping fresh and green the memory of wise, large-hearted donors like Senator Gowan and John Roberts, and also of the unnamed host of benefactors, who from the beginning have come to the help of the college. On not the least interesting brass is written "To commemorate the spirit of the students of 1887-88, who of their own motion contributed a large sum to complete the Jubilee Fund." This tablet, coupled with the recent effort of the students in behalf of Grant Hall, and placed alongside of the tablet "In remembrance of the benefactors who laid the foundations of Queen's University, 1839-40-41" enclose, as within the covers of a book, the whole story of Queen's, and show that its spirit has been the same from start to finish.

The portraits have looked down upon many a scene, the Sunday afternoon audience, the solemn Convocation, the funeral service, the intercollegiate debate, the ominous silence of examinations, the meetings of Alma Mater and Y.M.C.A., the gay rout of dancers; and lectures, concerts, addresses, dramatic performances and conferences innumerable.

As the University grew fast and like Pegotty was bursting its buttons on every side, Convocation Hall, too, was unable to meet the demands made upon it, and Grant Hall has come none too soon to its assistance. For twenty-one years Convocation hall has been the pulse and in some degree the heart of the College organism.

The Library.

The Library occupies the north-west portion of the first floor of the Theological Building. Semi circular in shape, with doors opening on one side to the large stack-room, on the other to the spacious consulting room, it bears visible signs of the frequent needs for expansion which have been met by continued additions until now no further extension is possible in the present quarters. The upper story, the iron shelving down the centre of the alcoves, and the gallery running across from north to south, added one after the other, all show that the Library has kept step with the growth of the University. In 1887-88, at the time of Principal Grant's arrival, there were eleven thousand volumes in the Library. At present there are about forty thousand, with an annual increase of nearly two thousand, including purchases and donations. The Library staff consists at present of the Librarian and two assistants who, besides the main library, have charge of the two consulting libraries in connection with it. Of these, one adjoins the Library, a large double room fitted up with long reading tables and chairs, forming Consulting Room No. 1. Here the fine collection of portraits given by Sir Gilbert

Parker, of the Governors of Canada, and of other historical personages, forms a double row round the rooms. Consulting Room No. 2, in the New Arts Building, is a most attractive looking apartment with its scarlet walls and dark panelled wainscot, its large open fireplace, surmounted by Mr. G. A. Reid's decorative paint-

departments have been placed in the consulting rooms, and these with the consulting library proper form a very valuable reference library directly accessible to the student at all hours of the day, and are a welcome addition to the student's usually limited stock of books.

The Library has from time to time



INTERIOR OF LIBRARY.

ings, its many tables and chairs, and its small departmental libraries for the pass students. Here some of the most important work of the Library is carried on during the session, the senior and honour students as a rule preferring Consulting Room No. 1, where they have ready access to the books required for reference.

Several small libraries for separate

been enriched by most valuable donations from the British and other Governments, notably, the publication of the Scottish Record Office and of H. M. Stationery Office, and lately by donation from the Italian Government of the magnificent series of folio volumes on Christopher Columbus, published in honour of the fourth centenary of his discovery of America.

THE KINGSTON BUILDING.*

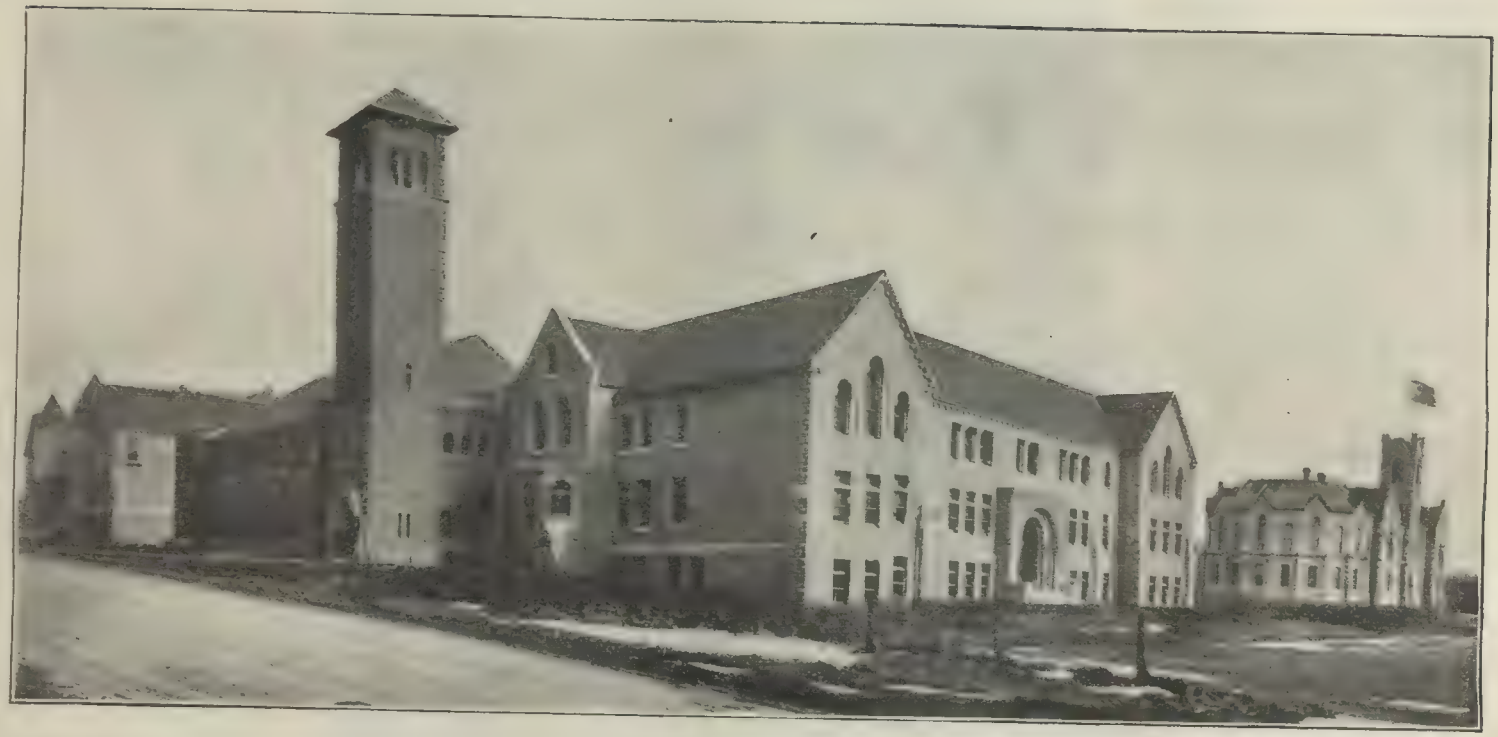
This building is, as the Chancellor's letter states, the golden link which binds the University to the city. After a hasty glance at its massive walls and unrelieved sky-line which bespeak severe economy, but which the student soon learns to love, let us step inside. We may either go down to the ground floor or up a few steps into the middle flat. At the west end of the ground floor the room running across the width of the building is the boys' Reading Room, where are displayed, in order and in disorder, over a hundred dailies, weeklies, and monthlies, comic, political, scientific, philosophical, and religious, where students of all faculties find reading matter to their taste. As this room is large and can be easily decorated, it figures conspicuously on social occasions.

Upstairs there is the same general arrangement of a long hall lined with rooms—the heavy doors of the main entrance and the north entrance facing each other in the centre. On this story, besides class-rooms, professors' rooms, and cloak-rooms, there is the "Red Room," as Consulting Library No. 2 is popularly known. (See description of Library under "Theological Building.") Here, as well as in some of the professors' rooms, are found books of reference,



CONSULTING LIBRARY No. 2.

*For staff and other particulars see page i.



ONTARIO HALL. GRANT HALL. KINGSTON BUILDING. THEOLOGICAL BUILDING.

free use, of which is on certain conditions permitted to the students. On the third and top flat there is another hall lined with class-rooms and professors' rooms. Here also are the JOURNAL Sanctum, where the editors think and write, and the Levana Room, where the Levana Society (the ladies' organization) meets, as also the Y.W.C.A. This room also serves as the Ladies' Reading Room, and, small as it is, is cosily and prettily furnished.

In all there are, in this three-story building, fifteen class-rooms, the three largest seating over two hundred apiece, the others seating an average of seventy-five. These along with ten professors' rooms afford an immense amount of accommodation for the size of the building.

To the visitor this building is no doubt the least interesting of all in the quadrangle, for there is no apparatus to attract the attention; there are only rooms empty save for the benches. But to overlook the work carried on in these rooms would be to miss the heart of the College; for here is fostered that liberal spirit wherein all the faculties share, and for which Queen's is noted.



LARGE CLASSROOM

GRANT HALL.

Raised by students of Queen's in honour of their late Principal, reverently named by Sir Sandford Fleming, when he laid the foundation-stone, watched over by its architect, Mr. W. L. Symons, and dedicated in the presence of the largest audience of citizens, students, and university authorities ever assembled within the



GRANT HALL (From the Quadrangle).

walls of the university, Grant Hall takes its place in the brotherhood of buildings which form the "Queen's of To-day." The issue of the JOURNAL of Nov. 16th, 1904, was devoted to the opening ceremonies. Here is added Principal Gordon's brief and inspiring address, which is evidence that the spirit which moved Principal Grant lives on in his successor.

Address by Principal Gordon on the occasion of the formal dedication.

Principal Gordon, after expressing regret that the Hon. Mr. Harty was unable, on account of the condition of his health, to speak as the representative of the benefactors of the University, said that the erection of this Hall marks another stage in the progress of Queen's. It is another expression of the devotion of her sons. They have often shown that devotion by their gifts and their service, and not seldom, even out of their poverty, their liberality has abounded towards their Alma Mater; but this is the high water mark as yet reached by their affection, although even this may be but the promise of better things to come. And this building is a memorial of him who was for twenty-five years the moving spirit of Queen's. Not that he stood alone in the service he rendered and in the triumph he achieved. He would himself be the first to acknowledge the constant and loyal assistance given him by the members of the staff. No university in our country is served by professors more faithfully, and we may claim that none is served by men more capable, as is shown, for instance, by the character of *Queen's Quarterly,* of which it is not too much to say that it is the foremost literary journal in Canada.

This Hall is evidence that they who erected it have, in some measure, caught the spirit of him whose name it bears. What that spirit was is known through personal acquaintance by most of us, and may be learned by others from the story of his life that has been so admirably written and has lately issued from the press. Nothing more clearly marked his career than the spirit of service. It is not in many instances that service reaches the height of self-sacrifice, but in his case it did, for he gave himself for Queen's.

And yet it would be narrowing the scope of his work if we thought of it as confined to the University. He served his country, and he thought that the highest service he could render his country was through the efficiency of Queen's. Indeed, it was because of his broad and fervent patriotism that he wrought so earnestly on her behalf, as if he said, "I could not love thee, Queen's, so well, loved I not country more." No man of his time took a deeper or more intelligent interest in all that concerned the true progress and welfare of Canada, in the purity of her public life, in the tone and tendency of her national spirit, in the righteous expenditure of her revenues. While, therefore, this Hall continues to speak to us of our lost leader, it may remind us that the University stands, as he did, for service, that it is here not merely to prepare men for certain professions, but to develop the highest type of citizens, to train them for serving and helping their fellows, and that thus it stands as a constant summons to strenuous and self-denying effort.

Such a memorial is an incentive to hope as well as a summons to work. Our late Principal looked out into the

future with faith and expectation, and his own achievement warrants even loftier expectation upon our part. He knew that the foundations of Queen's had been laid in faith, that her walls had been reared in self-sacrifice, and that the spirit that made such an outlay would not finally be put to shame. Therefore he always believed that for Queen's the best is yet to be. To us there comes the duty to carry on his work, so that from this centre for which he freely gave himself, many may go forth inspired by his spirit and following his example. We are called to share his faith and hope, and it may even be given us, as it was given him, to have our service reach the height of self-sacrifice.

BUILDINGS OF THE SCHOOL OF MINING.

THE JOHN CARRUTHERS HALL.*

The John Carruthers Science Hall was built in 1889-90 at a cost of $18,000, part of which ($10,000) was the contribution of the late John Carruthers to the endowment of 1887. The University was growing very rapidly, and the demand for more space had become imperative. The new building was intended for the department of chemistry and mineralogy, which up to this date had occupied two rooms in the Arts building, —a class-room and a very small laboratory with places for fourteen students. With the completion of Carruthers Hall, (the first building of its kind erected in Canada), began that remarkable growth of the scientific side of the University which led to the founding in 1893 of the School of Mining under a separate incorporation and later of the Faculty of Practical Science. For several sessions all the departments of the School of Mining were housed in Carruthers Hall, but in 1894 there was built the Mining Laboratory, (the first to be built in Canada) with funds provided by the Government of Ontario. In 1900 the School of Mining had grown to such an extent that the overcrowding of Carruthers Hall became alarming. Appeal being made to the Ontario Government, the Legislature voted $112,500 to erect two large buildings (Fleming Hall and Ontario Hall) for the departments of mineralogy, geology, and civil, mechanical and electrical engineering. The enlargement of the mining building a few years before had provided class-rooms and laboratories for the departments of mining and metallurgy. These advances made it possible to devote Carruthers Hall to the department of chemistry alone.

In the basement of this building are the assaying laboratories, a large store-room and an electrolytic laboratory. In the first story are the large lecture room seated for 116, laboratory No. 1 with places for 62 students, and several small rooms for stores and apparatus. This laboratory is usually entered by students in their second year, for the study of qualitative analysis. Thirty-one students can work conveniently at once. Each student spends from four to twenty hours a week in practical work, the amount of time required depending on the course he is pursuing. In the second story are laboratory No. 2 for quantitative analysis, No. 3 for elementary experimenting, No. 4 for

*For staff and other particulars see page iii.



JOHN CARRUTHERS HALL.

research, the library, the balance room, small store-rooms, and rooms for professors and assistants. No. 3 is a hard-worked laboratory. It is seated for forty-eight, but by assembling classes at different times it is made to serve for the instruction of as many as one hundred and fifty. It is different from most chemical laboratories in the fact that the students sit at their work and face towards the instructor's table. This makes it possible to combine the practical work with class teaching of considerable numbers by one instructor,—impossible in the laboratory of the ordinary type. In the Library are the books on chemistry, mining and metallurgy. The books are left accessible to the students so as to make them as useful as possible. The results are admirable. The books are in such constant use, that rebinding is occasionally necessary. The Balance Room is equipped with four Sartorius short beam balances. It is easily accessible from the laboratories.

In the third story is a class-room, a laboratory for organic and inorganic preparations, a store-room and an assistant's room. The laboratory is only partly furnished. It accommodates sixteen students working with large apparatus. Tables can be put in for sixteen more.

The total number of students taking classes in chemistry is about 250, divided among the faculties as follows:—Arts 70, Medicine, 85, Practical Science 95. All these students attend lectures and engage in laboratory practice. There are 9 courses of lectures delivered every session, and three of the six laboratories are supervised both morning and afternoon. All students of chemistry get some laboratory practice. The staff of instructors consists of a professor, two lecturers, two demonstrators, and two student assistants. In spite of the large amount of teaching required of the staff, some time is found for research, but it is all too little.

If the University and the School of Mining continue to grow at the present rate Carruthers Hall will soon be too small. Some of the laboratories are already overcrowded.

ONTARIO BUILDING.

Mineralogy and Geology.

The Departments of Geology and Mineralogy occupy the whole of the basement and the north half of the first and second floors of Ontario Hall. The basement is a room for the museum collections which will be arranged as soon as suitable cases can be procured. Another room is furnished with cutting and grinding apparatus, driven by electric power, for preparing rock-sections for petrographical work. From another large room used for storage an elevator shaft communicates with the upper floors. The Geology Department proper occupies the rooms of the first floor. First in order comes the main class-room, seated for sixty students and provided with demonstration-lantern, maps and models. The lecture-desk contains illustrative material in drawers which are interchangeable with those of the other cabinets of the department. One of the brightest rooms is reserved for the library and reading room, which is supplied with cases of books for reference, and journals relating to Geology. A large chemical laboratory affords ample opportunity for the study of the chemical composition of rocks. A



LABORATORY No. 1 (John Carruthers Hall).



LABORATORY No. 2 (John Carruthers Hall).

microscope room with northern aspect is furnished with the necessary instruments and cupboards for storage. In another laboratory are rock collections for consultation, and in still another apparatus required for experiments on the physical properties of rocks, the use of heavy solutions and the electro-magnet in the separation of the mineral constituents of rocks. A cloak-room, lavatory and private rooms for professor and assistant complete the list. The mineralogy department occupies the ten rooms of the second floor. It contains a class-room seated for sixty students and provided with excellent lantern and projection apparatus. Under the lecture-table is found the illustrative material conveniently arranged for the course of lectures. A large blowpipe laboratory seats forty-eight students, and includes material stored as in the class-room, arranged in accordance with a card-catalogue, cabinets of mineral specimens for practical work and apparatus necessary for drawing crystals. The chemical work of the department is carried on in a special laboratory furnished with all necessary modern appliances. In two private laboratories advanced students pursue research work. A dark room serves for balance-room and for work with the reflecting two-circle goniometer.

A special feature in this department is the "students' study," a room furnished with illustrative mineral and crystal collections and with cabinets containing "loan" collections. Each student of the junior class is given at the opening of the session a collection of about one hundred specimens of ores and rock-forming minerals. These collections are returned at the close of the session. The study will be furnished with appropriate reference books and magazines.

Physics.

The Physics Department occupies the south half of the first and second floors of this building. There are two lecture rooms, one on the first floor seating about sixty, and a larger on the second floor seating about one hundred and fifty. Both have large lecture tables with slate tops and convenient water, gas and electric connections. These rooms can be completely darkened in a few minutes by opaque blinds, and it is also possible to darken one corner and project apparatus or experiments with a lantern upon a screen placed there, while the rest of the room is sufficiently bright to allow the blackboard to be read with ease. Lecture apparatus is kept in a room adjoining the large lecture room and directly over the small one to which instruments may be lowered by a simple hoist.

Eight of the other rooms are devoted to experimental work. The largest, which is directly under the large lecture room, is nearly forty feet square and is used for general elementary experiments. A slate shelf extends along the south side with water and gas taps every few feet. The room is furnished with plain but strong pine tables, balances and other simple measuring instruments, and a large number of supports and simple elements out of which the student can build the combination needed for any experiment. Few elaborate instruments are to be found in this room, as the elementary experimental courses are designed to use the simplest means which will per-



ONTARIO BUILDING.

mit the required measurements to be made with the accuracy desired. This room accommodates about twenty-five students at a time.

The other laboratories are designed for special purposes. Two are made completely dark for optical and electrical experiments which require artificial light. Another large room is designed to contain a large concave grating. A balcony is built outside one of the windows, upon which a heliostat may be placed to admit sunlight. A dark lobby connects this room with a photographic developing room and with the corridor so that either room may be entered or left without admitting light.

A special system of wires connects a switchboard in one of the rooms with the storage battery system and with the electrical engineering department from which direct currents, of any desired electromotive force, or alternating currents can be obtained for experimental purposes. From this switchboard circuits run to each of the laboratories and to the lecture tables so that any desired current is immediately available in any of the rooms.

FLEMING HALL.

The Engineering Building, located in the central part of the college grounds, is the general rendezvous of all engineering students. Its proportions are not so stately as some of the other buildings but its position is unique in that it commands the whole campus.

In the basement are the power plant and the electrical, mechanical and testing laboratories. The power plant supplies all the electric power and light required by the various departments of the university. In connection with this plant is a large storage battery, which is charged during intervals in the day when there is not much demand for power. This battery when charged will supply 500 lights for four hours. The power thus stored in the day time is used for lighting in the evening when the power plant is not in operation. This battery also serves as a source of steady power often required for carrying on electrical experiments.

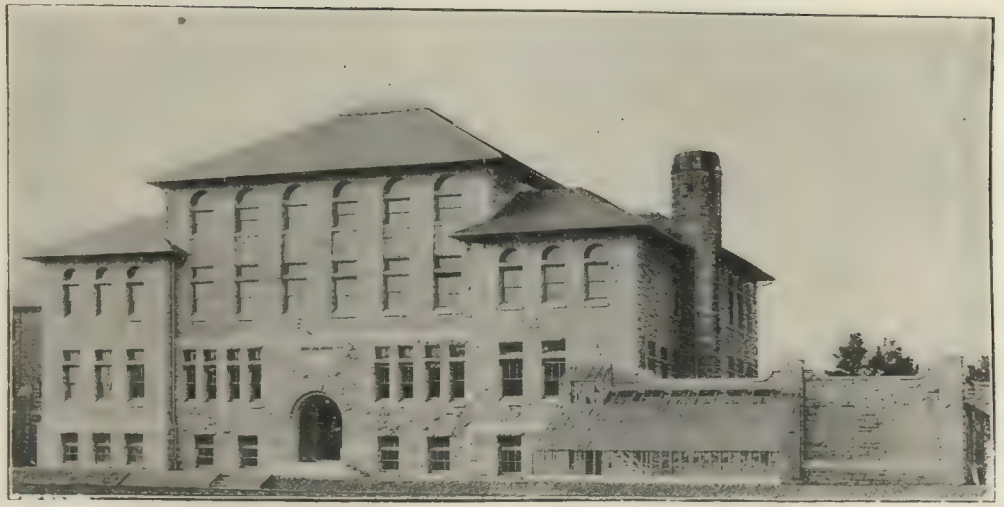
In the electrical and mechanical laboratories the student is trained in the methods of testing and handling standard types of commercial apparatus. Here he is taught how to apply the theoretical knowledge gained in the lecture room. The laboratory courses serve as an introduction to that broader field, where, to be successful, he must be able to apply theory, and modify it as circumstances require.

The first floor is at present devoted to *botany, but the recent very rapid increase in the number of engineering students will very soon necessitate that some provision be made elsewhere for this department. The need of increased accommodation for the engineering classes is felt even now.

On the second floor are the lecture rooms for the classes in mining, civil, electrical and mechanical engineering. On this floor is found the reading room, where the student gets a glimpse at the current papers and magazines. Close at hand is the engineering library, where the student can retire to consult special books and study the current engineering periodicals.

The third floor is devoted entirely to draughting and mapping, with the

*See page 243.



FLEMING HALL.

exception of two small rooms for blueprinting and photographic work. Here the student is given a practical course extending over four years. The work includes practical geometry, prospective, mechanical drawing, topographical drawing, plans, profiles, tracing and blueprinting.

In a wing attached to this building are the boilers which supply steam to



THE MINING LABORATORY.

heat all the buildings of the university and the school of mining. These boilers also furnish steam to the power plant above referred to. This central heating plant with a capacity of 500 to 600 horse-power is one of the very modern features of the institution, especially from an engineering point of view. The steam at moderately high pressure is conducted from the boilers to the various buildings through underground pipes, specially protected to prevent the radiation of heat. Before distribution in the class-rooms the pressure is considerably reduced. Ventilation is provided by means of fans arranged to force fresh air into the class-rooms after being heated by passing over suitably arranged steam coils. This plant has now been in operation for over two years and is working very satisfactorily. In addition to the fact that it is more economical than separate heating systems for each building, it offers other advantages. It confines the dirt arising from coal and ashes to one place, and it affords excellent opportunity for giving practical instruction to the engineering students, having been designed with due regard to this feature.

MINING LABORATORY.

The work of the Mining Laboratory, or as it is more familiarly called, the mill, is of an eminently practical nature; and is chiefly adapted to the needs of the final year mining and metallurgical students.

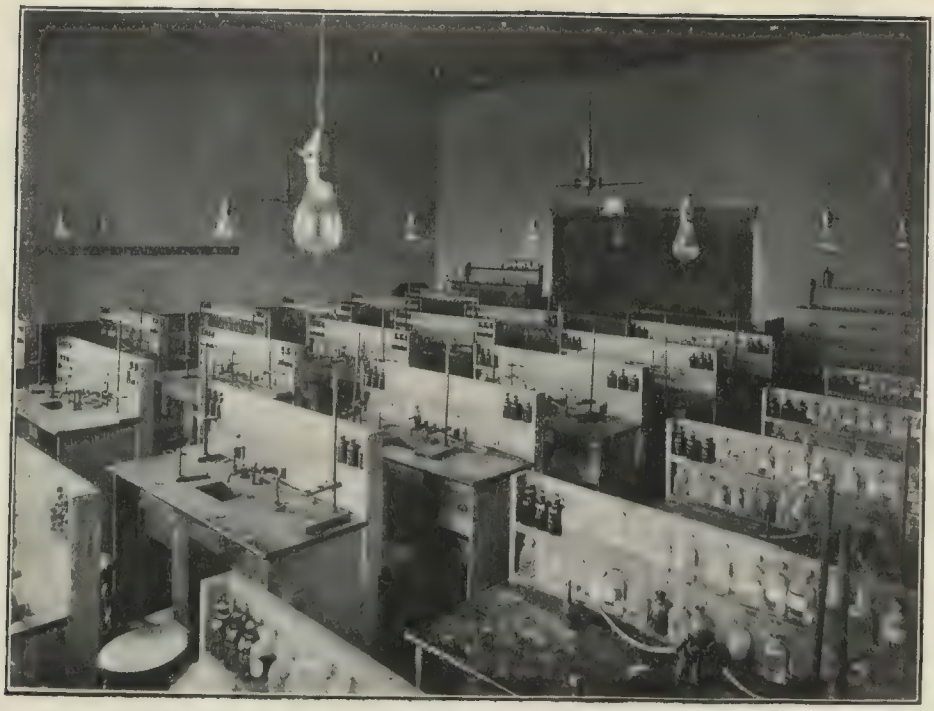
It is recognized that lecture and text-book work, although extremely useful in giving the student a broad theoretical view of his profession, must be supplemented by actual demonstration if the facts are to be impressed on his mind and he is to understand the essential importance of detail. So in these courses a very considerable portion of the student's time in the fourth year is spent in the mill, in working on the ores or rough products of the mine, in concentrating or separating the valuable minerals from the valueless portions or gangue, and in treating these concentrates or the ores directly for the recovery of the metals contained.

The laboratory is fitted up with apparatus for preliminary experimental tests and also with regular concentrating machinery of standard mill sizes and makes for treating ores in lots of several tons. The equipment includes various crushing machines, hydraulic classifiers for grading the ore, and concentrators such as jigs, Wilfley and slime tables, Frue vanner, etc., for separating the valuable mineral, which is usually the heavier, from the lighter and valueless portion.

Again the student is confronted with the problem of recovering gold from the ore or rock, which may contain from $2.00 to $100.00 worth per ton. He first experiments on a small scale and then carries out the work on a larger scale, as for instance, crushing and amalgamating several tons of the ore in a standard five-stamp battery, cleaning up and obtaining a gold brick. Or the gold values may be recovered from the ore or concentrates by dissolving or leaching out and then precipitating from the clear solution.

Smelting experiments may be conducted on a small scale in blast or reverberatory furnaces for the recovery of lead or copper from the ores, or tests made with an electric furnace. Such tests are continually checked by analysis of the materials, in a laboratory provided for this purpose in the mill. A room is fitted up for drafting in connection with mine surveying and for working out practical mining problems. There are also various types of rock drills, pumps, etc., which may be tested and the mechanism studied. All this work distributed over a broad field, although not making the student particularly expert in any one line, should help to lay a good foundation for his professional career.

The laboratory is also well fitted for testing ores for process and has proved a benefit to the mining industry of the country. For instance, when the corundum deposits of Ontario were first opened, the preliminary tests to determine the feasibility of separating and recovering the pure corundum were made in the mill. Each year we test two or three gold ores, to determine the best method of working, for mine owners and prospectors developing new properties. We have also made a number of tests for mine owners on the concentration of ores of lead, zinc, molybdenite, and iron.



LABORATORY No. 3 (John Carruthers Hall).



CLASSIFIERS AND CONCENTRATORS (Mining Laboratory).

THE MECHANICAL LABORATORY.

The Mechanical Laboratory of the Practical Science department of the University consists of two distinctive sections, wood-working and metal-working.

The wood-working is carried on in a well-lighted and capacious shop in the second story 72x32 feet, which is supplied with three wood-lathes, a jig-saw, a circular saw, and a large number of benches with all the necessary small tools, a band-saw, not yet put into working order, and a two-horse power motor. The regular work done here is the making of wood joints and other small pieces, until the student acquires some dexterity in the use of tools. He is then put to pattern-making as a principal occupation, with variations on other things that may be required. Careful instructions are given in the making of complicated patterns with intricate coring where necessary, and no subject is considered too difficult to be attempted. Thus the ready and careful student becomes well acquainted with the necessities of a pattern, and learns how to form a pattern which shall give a minimum of trouble to the moulder.

Students who enter with a sufficient knowledge of wood-working are put at pattern-making at once and without any preliminary preparation in the shop.

In the metal-working section on the first floor there are a No. 4½ Barnes lathe, a four-feet lathe built in the shops, a lathe by Muir & Co. of Manchester, England, a Porter lathe swinging 11 inches, and a lathe from castings donated by Bertram & Sons of Dundas, which although quite finished, has not yet been put in place. Of these the Barnes lathe is a very complete tool with slide, rest and screw feed; the Porter lathe is a complete engine lathe with screw and rod feed; and the other lathes are all supplied with slide rests. A Pittler lathe is also well under way, but is not yet completed.

This shop also contains a 20-inch shaper by Bertram & Sons, a drill press donated by Bertram & Sons, and a planer 6x2x2, by the same makers. There are also two small and convenient wall drills, taking drills from 0 to ½ in.

The other machine tools are a gear cutter for milling cutters, taking in wheels up to 9 in. diameter; a smaller gear cutter with fly cutters taking wheels to 6 or 7 in. diameter, and principally used on brass and wood; and a drilling machine with divided plate and traversing drill for making lantern pinions, &c. The shop is well supplied with all the small hand tools usually found in a machine shop.

As to the work done in the machine shop, it is as varied in character as it well can be. All the smaller machine tools are now made in the shops, such as lathes, drills, taps and dies, planer centres with graduated plate, gear cutters, &c., &c. Besides these the shop has built several dynamos and motors, resistance coils, and other electrical apparatus; several steam engines, from ¼ to one-horse-power; a gasoline engine; a large clock with Denison's gravity escapement upon the model of a turret or church clock (and this clock keeps the time for the mechanical department); many pieces of apparatus, some of them quite complicated, for the physical and other departments; and a very complete set

of working mechanical models, which are on view at any time in the model room.

No kind of work, which comes under the head of machine-shop work, is considered too difficult to attempt or to be beyond the capacity of the appliances. And here, if in any place in the world, the student who is careful and attentive may get a good knowledge of the way in which work is done, and the appliances by which it is done.

The chief purpose of a regular manufacturing machine shop is to make money, and it often makes the workman a mere part of the machine which he superintends. Into the college shop the money question does not intrude. In it the one important thing is to impart instruction by both precept and example to the student, and to all machinists who wish to make themselves complete in both practice and theory.

We have especially to thank the firm of J. Bertram & Sons of Dundas, Ontario, the great machine-tool makers of Canada, for their uniform kindness in coming to our assistance. The last machine received from them, the planer alluded to, is such a beautiful poem in iron and steel, that the hope of the writer is that successive generations of students may work with it and so admire it as to utter a silent prayer for the continued prosperity of the firm which makes such fine and beautiful machines.

OUTSIDE WORK OF THE SCHOOL OF MINING.

This may be described as of four kinds:

1. University Extra-mural work.

2. Outside classes in mining subjects.

3. Exploratory work.

1. Field classes in mineralogy, geology, surveying and mining.

1. Arts students in chemistry, physics, mineralogy, and geology may study extramurally under the direction of tutors, who set exercises, and examinations, and discuss difficulties so far as that can be done by correspondence; where the extra-mural students have laboratories the tutors prescribe practical exercises and examine the reports on these. In many cases these students come to Kingston and work in the laboratories during the Christmas holidays and part of the summer. Most of them spend at least one session in Kingston before graduating. The system works well, and has made it possible for a large number of public school teachers to get the benefit of a university course in Science.

2. Since 1893 the School of Mining has been sending out lecturers to mining towns and camps to conduct classes in subjects related to mining. This was at first done independently, but of late years under the direction of the Ontario Bureau of Mines. The object has been to stimulate the study of elementary mineralogy and geology, and to diffuse such information as would be helpful to those engaged in exploring and developing mineral lands. These classes are now attended by about 100 men every summer. About 15,000 mineral specimens are distributed each year by the lecturers.

3. Several members of the staff of the School of Mining have done valuable service to Ontario and to other provinces by their summer work in exploring mineral regions and in



MECHANICAL LABORATORY—WOOD WORKING AND PATTERN MAKING.



MECHANICAL LABORATORY—MACHINE SHOP.

teaching others how to explore. The school is also in constant communication with large numbers of prospectors who write asking for information, specimens, or advice in their work. They visit the school to compare their finds with museum specimens, and to get more extended information than is possible by letter. The educational work done in this way, while fragmentary and informal, is not to be overlooked. It reaches a part of the population otherwise quite outside of the sphere of University influence.

4. The field classes are not outside classes in the same sense as the term has so far been used. Students are taken to the nearby places, where geology, mineralogy, mining and surveying can be studied in the most practical way. These excursions, moreover, take a section of the university out into the country for the people to see for themselves. Occasionally young men join the party and listen to the informal lectures given, while miners and managers have an object lesson in the advantages of scientific training.

MEDICAL BUILDING.

In 1854 the Medical Faculty was organized and teaching instituted so that the Faculty is now in its fifty-first year. During this period, however, the teaching department has not always been a Faculty of the university as, from 1865 to 1892, the teaching was conducted under the Charter of the Royal College of Physicians and Surgeons of Kingston, an affiliated College. In 1892 the Royal College was merged again in the faculty of medicine of the university. Very satisfactory progress in all departments of medical work can be recorded from this date, and the faculty can claim to have contributed its fair share to medical education in this and the western provinces and territories. During this period laboratories have been instituted and equipped for physiology, histology, pathology, bacteriology, pharmacy and experimental pharmacology. An additional story has been added to the building and facilities for anatomical study greatly increased. The clinical facilities, too, have been much extended by the enlargement of the General Hospital, and also by the admission of students to the wards and practice of the Hotel Dieu Hospital and Rockwood Hospital. Growth in the number of students has also been satisfactory. In 1892, 110 students were registered, while the registration this session is 205. Of these thirty-four possess an Arts degree, and twenty-one others have spent one or more years in Arts. The majority of these are taking the combined B.A., M.D. course. The matriculation standard is also of a higher character, and this with the number of students taking partial or full Arts courses is a matter of much satisfaction, making as it does for the more liberal education of the physician.

The College building, while putting forward no claim to architectural pretensions, is well adapted for its purpose. Its rooms are large, airy and particularly well-lighted. The second or top floor is devoted to the study of anatomy and contains a large disecting room, "bone" room, and two lecture rooms. The facilities given for the study of practical anatomy are not surpassed by any school in Can-

For staff and other particulars see page ii.



MEDICAL BUILDING.

ada, the Ontario Anatomy Act securing for the school the requisite material. In the anatomical department there are six instructors, one of whom, Dr. Etherington, devotes his entire time to the work, thus assuring that this fundamental subject receives due emphasis. On the first floor are found the pharmacy laboratory, a large lecture room and the college library has lately been added to the list of the "Association of American Medical Libraries," a step which will greatly add to its usefulness.

The ground floor of the building is occupied by the class-room and laboratories for pathology and bacteriology, and the pathological museum. Dr. W. T. Connell is in charge of work done here, and devotes his



KINGSTON GENERAL HOSPITAL.

offices, library and reading room. The pharmacy laboratory is in charge of an expert druggist, and the students are taught practical dispensing, a necessary equipment for most physicians in this country. The library of the faculty is as yet but a nucleus containing some 650 volumes, apart from journals and pamphlets, of which a large number are on file. The entire time to it. The laboratories are well equipped for all the usual work of these departments. No facilities in the shape of special rooms and equipment as yet exist however for the carrying on of research work, though the laboratories are never without one or more graduates engaged in some line of work, especially in clinical microscopy. The other departments of



ROCKWOOD HOSPITAL.

medical work are housed elsewhere. The laboratories for physiology and histology are in the theological building and are under the direct supervision of Prof. Knight. These laboratories are well fitted with all those special requirements so needful to-day for physiological study and research. The experimental laboratory for pharmacology is also in the same building, the work being carried on by Dr. A. E. Ross. This laboratory has proved a valuable adjunct to the teaching in pharmacology. Chemistry is taken in the laboratories of Carruthers (Science) Hall, and physics in the physical laboratories of the School of Mining. The main clinical teaching is done in the wards and operating rooms of the General Hospital. This Hospital has special departments for maternity, gynaecological and infectious cases, and has in all 200 beds and treats about 2,500 patients annually.

The wards of the Hotel Dieu Hospital were thrown open to the students two years ago and the work there has greatly added to the clinical material and enriched the teaching of this, perhaps the most important, portion of medical training. This Hospital treated over 1,400 patients last year and has 160 beds.

Rockwood Hospital for the Insane with its 600 patients also affords much material for clinical teaching as well as study of mental disease. Weekly clinics are held there by the physicians in charge, who are members of the Clinical staff.



FENWICK OPERATING THEATRE.
(KINGSTON GENERAL HOSPITAL.)

THE SPIRIT OF QUEEN'S.

THE College song says in a somewhat playful tone that "Queen's is quite unique." There is some solid truth in the saying. She has what not very many universities on this continent can claim, a clear-cut individuality. She impresses an unmistakable common stamp upon her products. Her graduates can readily be known as hers, and not another's. There is a certain central life in her of a vigorous and well-marked type which is her own.

It expresses itself in a good many various ways. Different observers are struck by different manifestations of it. Everyone notices for instance that her under-graduates and alumni are greatly attached to her. They believe in her to an extent which attains to quantitative statement in actual pecuniary sacrifice not equalled in the history of universities. From Chancellor to Freshman her constituents are a unit where she is concerned. They all have a feeling of personal ownership in her and take hold with energy when need arises. As Thucydides says of the Athenians, "Every man thinks the work is at a stick where he is not personally engaged" —just the opposite of the state of matters frequent in the academic world as in the rest of the world when "what is everybody's business is nobody's business." This active participation of each in the common effort of all goes closely with what others notice as remarkable in Queen's, namely, the self-help and self-government so unusually developed among her students. To a great extent they manage not only their own affairs but also what in most places would be regarded as most decidedly other people's. The discipline of the university is largely in their hands. Of course the consequence is that nowhere is the discipline better. Hence another note of Queen's that finds general recognition —the excellent relations between students and professors known to be characteristic of her. There is no great gulf fixed. The don is not so much *in loco parentis* as *in loco fratris majoris* and takes hints if he has any sense at all in manifold ways from the *fratres minores*. Queen's has been a wonderful shaping mother of professors, as well as of undergraduates. Many of them have owed to her the best part of their university education. Thus she is a school of the best democracy. Every man counts for what he really can strike. Solemn humbug is at a discount. Freedom is in the air and no one expects awe-struck acceptance of his mere *ipse dixits*. Some find in Queen's too what goes with all this, an unusual energy of the missionary spirit. Being "broad-based upon the people's will," she does not dwell in the windless isolation of any Olympian heights. She is a part of the common life of the country realizing vividly her responsibility to do something effective towards touching that to fine issues. One way in which she does it is through the *Queen's Quarterly*. And indeed the peculiar intensity of life that marks her could scarcely be more palpably demonstrated on its highest side than by the fact that for twelve years without interruption this truly first-class periodical has been issued steadily from a King-

ston printing press. Good judges say that there is nothing like it in this country. And it is steadily rising in quality. The last number has been pronounced by one who knows to be "quite upon the level of the great English Quarterlies."

Now all this is sufficiently remarkable, and all of it hangs together. But what is the root of it all? I think that was seized by Dr. Reichel, a member of the Mosely Commission. He found in Queen's a type of "the best Scottish university traditions." They were an embodiment of the great distinctive principle of the Reformation, and especially of Presbyterianism—the unity of truth. Their aim was not to produce craftsmen but educated men, men who lived and worked in the light of large ideas, who saw the whole in the part which they had chosen for their own special field of activity. They made the Arts Faculty, the organ of a general liberal culture, the centre of the whole university. Partly in consequence of her traditions, partly of her poverty, partly of certain powerful personalities which have helped to shape her, Queen's has been the banner-bearer of this principle in Canada. This is her distinctive quality, the very soul of her, from which all else springs, the energetic concentration with which she has realized and embodied the unity of truth.

And—true to her Presbyterian traditions—the sacredness and saving power of truth. Of all truth. Not merely of some specially labelled brand. Therefore she has always refused to draw a hard and fast line between the sacred and the secular. Arts and Theology have always been inseparable in Queen's. Her professors in Arts have always counted no less as professors in Theology. At the Alumni Conference they have always contributed the greater part of the programme. And on the other hand her professors of Theology have a very decided influence in moulding the under-graduates in Arts. The Sunday afternoon addresses given impartially from either side of the house reach all our students. So do the classes in the English Bible which meet twice a week. These things are counted in Queen's as a necessary part of general culture, and no subject of general culture is regarded as other than sacred. In one word then, the spirit of Queen's may be described as a certain fearless and open-eyed reverence. That is why her students love and honour her and are ready to prove their faith by sacrifice.

HOSPITAL TICKETS.

By an arrangement with the managers of the Kingston General Hospital any registered student can secure for one dollar, a ticket entitling the holder, in case of sickness, to Hospital attendance, including room and out-door treatment, during the full college session. By means of this arrangement, which is a sort of insurance, many students receive, with the exception of the attendance of a physician, all other requisite attention in case of sickness or accident, which might otherwise cost them more than the average student can well afford to pay. No one who does not make use of his ticket grudges his dollar when he considers the benefit received by his less fortunate fellow-students.

ALUMNI CONFERENCE.

WHILE the General Assembly of 1891 was in session in Kingston, a meeting of Queen's Alumni was called, chiefly with a view of extending the interest in the work of Dr. Smith, the College missionary, then labouring in the Province of Honan. At this meeting it was agreed to organize a society which should form a bond of union between the older and the younger Alumni, and afford better opportunity of maintaining and increasing the efficiency of the Theological department of Queen's. The day following, a committee was appointed to draft a constitution for the new society.

In October of the same year, the Society met, adopted the constitution prepared by the committee, and from the membership of this committee elected these officers:—

President—Rev. D. J. Macdonnell.

Vice-President—Rev. M. Macgillivray.

Secretary—Rev. Alfred Gandier.

The other members of the committee were Messrs. Milligan, Cumberland, James Ross, J. G. Stuart, and A. H. Scott.

As stated in the constitution, the main objects of the Society were:—

(1) To bring the Theological Alumni into closer relation with one another.

(2) To secure increased interest in the Theological Department of Queen's in order to its more adequate maintenance.

(3) To confer regarding all matters affecting Theology and Theological education.

The new society selected an Alumnus of Queen's from each Presbytery of the western section, who was to have special charge of the work of the society in his own Presbytery. A committee was named to consider the advisability of establishing a short course of lectures for the benefit of the Theological Alumni, and to take action, if necessary. On this committee were Messrs. M. Macgillivray, John Hay, D. Ross, and D. McTavish. Through their action the first annual meeting of the conference was called in April, 1892.

Already the membership had grown to thirty-one, and on April 27th there came in twenty new members. First among these was the Chancellor, Sir Sandford Fleming; next came Professor Macnaughton, and a number of students also enrolled themselves. That was a day of promise for the society. The committee brought in four main recommendations. (1) A course of lectures on Higher Criticism and the New Testament by the Principal. (2) A course of studies by Professor Watson on the Philosophy of Religion. (3) That sufficient time be allowed after each study to ask questions, and have general discussion. (4) That those having charge of the courses of study prepare an outline of the course, recommend books for reference, and assign subjects for essays.

By arrangement of the committee, the First Alumni Conference met in the Senate Room on Feb. 7th, 1893. Principal Grant presided and opened a discussion on the general principles of Biblical Criticism. Prof. Watson conducted the discussion on "The Philosophy of Religion as Represented in Luther and the Reformation,"

and essays were read on various phases of the subject by Messrs. Milligan, Hay, Gandier and McTavish. Through the kindness of professors, members of the Conference attended lectures of special interest on various subjects both in Arts and Philosophy. At the annual business meeting which followed, after full discussion, this decision was arrived at, that it was "advisable and feasible to establish a permanent lectureship in connection with the Conference."

Through the liberality of the Chancellor, what was advisable became actual, and his letter to the Principal in this connection is well worth reproducing. He wrote from Ottawa, June 1st, 1893, as follows:—

"In the last issue of the JOURNAL I read selections from your annual report, with regard to the proposed lectureship in connection with the Conference of the Theological Alumni of Queen's. They recalled to my mind the meeting at which I was present during Convocation week, on which occasion I was greatly struck with the spirit of those present and the reasons advanced to show that such a Lectureship would be beneficial. There should be no delay in making a beginning, and I desire to express my willingness to contribute the sum necessary, for the next three years. As to the Lecturer, it seems to me that no one could better fill the position than Dr. Watson, who did so much to make the first Conference a success."

The Conference of February, 1894 was far in advance of the first of the series. In accordance with the provision made by the Chancellor, Dr. Watson gave a course of lectures on *Dante and Mediaeval Thought.* Detailed information as to the course of study was given, and members of the conference who had made preparation were well rewarded for their industry. In addition to following this course, the members present discussed Bruce's Apologetics and Fairbairn's Christ in Modern Theology. Professor Dyde and Messrs. G. M. Milligan and D. J. MacDonnell took a prominent part in this Conference, and papers were read by J. Sharp, J. A. Sinclair, R. MacKay, J. J. Wright, and D. McTavish.

There are many conferences held annually in Canada now, and without exception, they owe something to the late Principal Grant and his valuable committee. For the Queen's conference was the first of the kind to be held in Canada during the ordinary university session. And the Queen's conference began to shape its distinctive course when, through the generosity and public spirit of Chancellor Fleming, a Lectureship was established. The endowment of that Lectureship is assurance that every conference held in Kingston will have an undoubted value and substance and colour of its own, while, because of their conditions conferences in other centres must be more limited in their range and more variable in their quality.

The connection of the conference with the Arts Department of the university has been a distinct advantage to both. So early as 1893, it was remarked that there was no reason in the nature of things why only Theological Alumni should attend. What began as a Theological Alumni Conference is known now as an Alumni Conference, and is attended by students from all the faculties, and by many citizens of Kingston. The main

idea of the conference has come to be intellectual stimulation. The prescribed courses are studied beforehand, and the forerunners of 1893 and 1894 have had many followers in their good example of essay writing on appointed subjects.

Since 1894 there has been a steady development. The atmosphere was decidedly stimulating in the early years; it may not seem so enlivening now, but it is still absolutely free, and that freedom is another marked characteristic. The conference has not been given to frequent changes. The Chancellor's Lectureship was held for several years by Dr. Watson, and then by Dean Dupuis, and the present Lecturer is Prof. Shortt. The Presidents of the Society have been D. J. Macdonnell, Dr. M. Macgillivray, and Dr. Milligan, who gave splendid service for many years. The chair is now occupied by Rev. Dr. McTavish of Toronto. All the presidents were charter members of the conference, and have had a great deal to do with its pronounced success. The conference also owes much to the generous support of the professors in Divinity and in the Arts department. The attendance at the last meeting of many ministers who had become members of it during their college days was a proof of the enduring influence of the work then carried on. When the Assembly of 1905 will meet in Kingston, there should be a gathering of the pioneers of 1891 along with their many successors, and then more may be told of the history of the Queen's Alumni Conference.



ASSAYING LABORATORY (John Carruthers Hall).

HISTORICAL SKETCH.

THE Royal Charter of Queen's dates back to 1841. In 1836, steps were taken by the Synod of the Presbyterian Church, to found a college at Kingston, Ontario, for the training of young men for the learned professions, including the work of the ministry. The beginnings, as usual with colleges, were small. The first classes with ten students were opened in March, 1842, with Dr. Liddell as Principal. Funds were provided, in part from grants from the Church of Scotland and from the Canadian Government, in part from the liberal subscriptions of friends of the young and growing University. Owing to the lack of good schools in the Province it was found necessary to establish a preparatory school in connection with the College. In spite of straightened circumstances and many obstacles, progress was steady, and financial difficulties were overcome by the energy and courage of Principal and friends. Three times have appeals been successfully made to the public for the Endowment Fund. The first campaign under Principal Snodgrass took place at a time of great depression, and tided the College over a serious crisis. A second appeal was made by his successor, Principal Grant, in 1878-79, with brilliant success, and in 1881 a new building, an enlarged staff, and a great increase of students was the immediate result. Again in 1887 an effort was successfully made to raise the sum of $250,000, which was called, in honour of the Queen's Jubilee, the Queen's Jubilee Fund. The twenty-five years of Dr. Grant's principalship were marked by extraordinary growth and development on every side of college life. Himself a tireless worker and a born leader of men, he succeeded in infusing his own enthusiasm into all around him. At the time of the Federation of Colleges in Toronto, Queen's was urged to join, but the proposal was decidedly negatived by the friends of Queen's and events have fully justified their decision.

The Medical Faculty of Queen's was established in 1854. It was reorganized in 1865 as the Royal College of Physicians and Surgeons in affiliation with the University. In 1892 the original status was resumed. The number of students last year enrolled was 216. Queen's led the way, in Canada, in co-education. As early as 1870, special classes in English and other subjects were formed for women, but the academic career leading to a degree was not thrown open to them till 1878-79. In 1880 co-education was extended to the medical course, but in 1883 a separate Women's Medical College was opened and affiliated with Queen's. In 1894, similar facilities being offered in Toronto and other places, this college was closed. Meanwhile the extension of Queen's continued. 1891 saw the opening of the Carruthers Science Hall and of the School of Mines, the latter under Government support, by whom the splendid building for Physics and Geology has lately been added. At the time of Principal Grant's death in 1892, three new buildings were rapidly approaching completion.

Since that time a magnificent Convocation Hall has been erected by the students and alumni to his memory. It is called the Grant Hall. The group of College buildings at present consists of two Arts Buildings, with the Grant Hall, the Engineering Building, the Geology and Physics Building, the Carruthers Science Hall and the Medical Building.

The number of students registered last year, in all faculties, was about a thousand. Each session tells of increase. The government of the student body is largely carried on by the Alma Mater Society, which was formed in 1859-60. It has its own officers (taken from the students) and regular meetings, and has its official organ in the QUEEN'S UNIVERSITY JOURNAL, published entirely by the students. The annual Alumni Conference brings many of the sons of Queen's back for a week's intercourse and renewal of old ties.

The Library, which is in the main Arts Building, contains about forty thousand volumes, including many valuable donations and collections.

There are Libraries also in the Science and Medical Buildings.

The curriculum of the University includes the folowing courses:—

The Arts Course, leading to the degrees of B.A. and M.A., D.Sc., and Ph.D., which embraces Classical Literature, Modern and Oriental Languages, English, History, Mental and Moral Philosophy, Political Science, Mathematics, Physics, Chemistry, Mineralogy, Geology, Assaying, Metallurgy, Botany and Animal Biology.



HOTEL DIEU HOSPITAL.

The Law Course, leading to the degree of LL.B.

The Theological Course, leading to the degree of B.D.

The Medical Course, leading to the degree of M.D. and C.M.

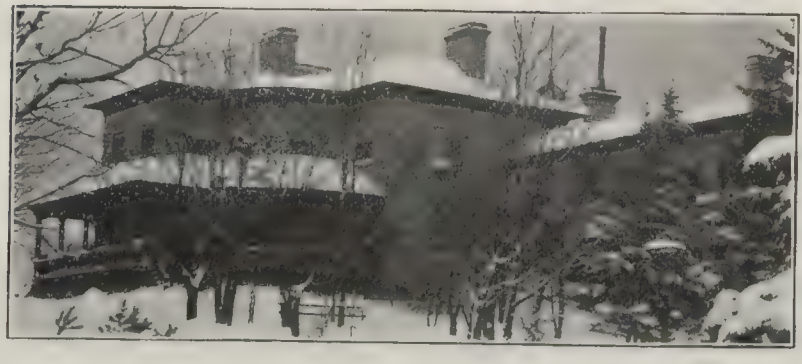
The Science Course, leading to the degree of B.Sc. and M.E.



QUEEN'S UNIVERSITY
March 7, 1842.



October 1, 1844.



November 3, 1853.

The.. Growth of..... Queen's.



1858-1880.



QUEEN'S UNIVERSITY
1880–1900.

For "Queen's of 1905" see Frontispiece.

GENERAL FEATURES OF QUEEN'S.

CONSTITUTION.

In the charters of many of the old world colleges it is written that they were founded for the "promotion of piety and learning," and in like manner the Royal Charter of Queen's University provides for "the establishment of a College in connection with the Church of Scotland for the education of youth in the principles of the Christian religion and for their instruction in the various branches of Science and Literature." It also goes on to say "that no religious test or qualification shall be required of or appointed for any persons admitted or matriculated as scholars within our said College," and so from the beginning two things are affirmed for which Queen's has always stood, Christianity and Catholicity.

It was to meet the pressing need of preachers and teachers for Canada that the College at Kingston was founded. The matter had already engaged the attention of Scottish churchmen in the province for some years when in 1835 a pastoral was issued by the Moderator of the Synod, the Rev. Dr. McGill, in which the scheme of the university is outlined thus:—

"Following the Universities of our native land as a model, we shall take up the pupil at the farthest point to which the district and Grammar school has conducted him, and introduce him to those higher studies, that may qualify him for public and professional avocations. For this purpose we contemplate having separate chairs in the FACULTY OF ARTS for the Latin and Greek languages, for Logic and Belles Lettres, for Natural Philosophy and Mathematics, for Metaphysics, Ethics, and Political Economy; and in the FACULTY OF THEOLOGY a chair of Divinity, of Ecclesiastical History and Government, and of Oriental and Biblical Literature. It may not be practicable for some years to carry this plan fully out with a separate professor for each of these departments. But with four professors and other assistants, it is believed, such a distribution of these branches may be made, as shall secure to the student a competent instruction in each. As our funds increase and the number of pupils may require, new professorships will be instituted, and greater facilities afforded by greater division of labor."

The first American colleges were the spiritual children of those of the old world and so it was with Queen's. The Scottish universities furnished the pattern. They were national institutions, each having its theological faculty connected with the national church, and the men who founded Queen's had the spirit of their fathers, and regarded "piety and learning" as inseparable elements in the education of youth; historically it had been so, and they knew no other way. The novelty of learning dissociated from religion had not occurred to their minds. At the same time the college must be free and open to the whole people. Such was the character of the university known to the Scottish mind, and it was naturally reproduced in Queen's. The first professors were men trained in the Scottish universities, they knew only the national type of institution, and they could mould the infant college only in that

way. You could not associate the names of Campbell, Cook, George or Williamson, much less of Grant, with a spirit less than national in its breadth and catholicity, and the institution so founded must needs grow up national in its character as the acorn must grow to be an oak, and you can in no wise convert it into a Lombardy poplar.

The Royal Charter provided a Board of Trustees, twelve ministers and fifteen laymen, to "make Statutes and Ordinances touching and concerning the good government of the said College, and also touching and concerning any other matter or thing which to them shall seem necessary for the well-being and advancement of the said College," but statutes, &c., affecting the Theological faculty are to be approved by the Synod of the Presbyterian Church.

The clerical members of this board were chosen by the Synod and the laymen were selected by the board from nominees sent in by congregations throughout the church. This continued until 1874 when the union of the Presbyterian churches of Canada took place. One branch of the church being then unwilling to assume the responsibilities of a university, the Trustees provided for by the charter have been since that time elected by the board itself. The first expansion of the constitution came in 1874 when the University Council was instituted by the wisdom and sagacity of Principal Snodgrass and Professor MacKerras to give the graduates a voice in College Councils. It has fully justified their faith, in it. Professors and trustees meet an equal number of graduates chosen to represent the whole body and they take counsel together. No step forward for the past thirty years, whether it was endowment or the organizing of a new faculty, or the erection of a new chair, has been counted foreign to the University Council.

In the year 1885 legislation was obtained giving it power to elect five members of the Board of Trustees who are chosen irrespective of creed. The graduates have thus a direct participation in the government of the university and the relation between them and their Alma Mater has thereby become more living and active. The results of this broadening of our constitution have been so satisfactory that the General Assembly now has said that they "would approve of arrangements being made whereby the graduates may be given, through the Council, a larger representation on the Board of Trustees." And this will now be duly provided. But the University proper, which is the community of teachers and scholars gathered in the college halls, is practically a self-governing republic; the students govern themselves and the professors follow their good example, or skirmish ahead of the line, whilst the Principal is king and servant of all.

EXTRA-MURAL STUDENTS.

Extra-mural students have been permitted to take the course in Queen's for sixteen years, and the increasing popularity of this method shows that it supplies an important need. It is not always possible for young men and women to attend the classes in the University. Especially is this true of teachers in our public schools who are compelled to earn their own living. On the other hand it wil not be denied that the aim of a

University should be to act as directly as possible upon all members of the community. It was mainly this consideration which led Queen's to provide instruction for extra-mural students in Pass and Honours, leading to the degrees of B.A. and M.A. Examinations for these students were instituted for the first time in Session 1888-9. It was soon found, however, that the candidates for these examinations were heavily handicapped from the fact that they had to carry on their studies without any aid from qualified teachers. Hence in a few years the Senate decided to offer Tutorial assistance in the work prescribed. Since that time regular exercises and essays have been prescribed covering the work of the various subjects, and these have been carefully examined and correctd by the tutors under the direction and with the assistance of the various Professors. The result of this experiment in University extension has on the whole been highly satisfactory. No candidate is allowed to register as an extra-mural student until he has satisfied the Senate of his inability to enter the University as an intra-mural student. It is not only those who are engaged in the active work of life—namely, public school teachers, but also in some cases, clergymen and business men—to whom the privileges of the extra-mural student are extended. All extra-mural students who are candidates for a degree must, before being registered, pass the ordinary matriculation examination or an examination accepted by the Senate as equivalent. When that examination has been passed they must then register and pay the registration fee of ten dolars ($10) and the tutorial fees of the classes,—in which they propose to study,—before October first. The Registrar then sends their registration cards and forwards to them cards in the subjects upon which they propose to be examined the following April or September. The essays and exercises in the different classes are compulsory, their object being to supply as far as may be the training which the intra-mural student obtains from actual attendance upon classes. A list of centres where extra-mural examinations are held is supplied by the Registrar, and if for special reasons a candidate is unable to write at one of these, a new centre may be established on payment of a fee of five dollars ($5). In all cases the examination fee must be paid in advance by the candidates and in addition a fee of one dollar ($1) for each local half-day examination by students writing away from the University.

A glance at the figures in the following table will show what a remarkable increase in the number of extra-mural students has taken place since the institution of the courses:

NUMBERS OF EXTRA MURAL STUDENTS.

1893		38
1894		33
1895		67
1896		85
1897		90
1898		106
1899	104 undergraduates 8 post graduates	112
1900	106 undergraduates 24 post-graduates	130
1901	118 undergraduates 22 post-graduates	140
1902	132 undergraduates 5 post-graduates	137
1903	144 undergraduates 9 post-graduates	153
1904	165 undergraduates 6 post-graduates	171

A great many extra-mural students register at the new year, so that 1904 will probably register nearly 200 by the spring.



PRINCIPAL GRANT

By agreement with the education department of Ontario courses for specialists have been established, by means of which candidates who obtain the degree of M.A. or B.A. receive the non-professional qualification of Specialist. No one is entitled to this qualification who does not take the rank of M.A., or failing that the degree of B.A. with second-class honors (66%) in one of the specified courses. Extra-mural students may in this way obtain a Specialist's certificate, but under the new regulations of the Education Department they must attend classes in the university for not less than two full sessions. It is possible that this demand may to some extent decrease the number of extra-mural students, but, considering the great advantage which is sure to result to them from direct contact with the professors of the university and fellow-students it may fairly be contended that the regulation is wise and justifiable.

THE WOMEN STUDENTS.

In Canada Queen's University was quite in the van of educational progress with the Old Country, and ahead of her in liberality. Ladies had occasionally attended Dr. Murray's classes as far back as 1870, but, as the Domesday Book records, it was not till "early in the session of 1878-9 that the authorities of Queen's announced that the advantages of the university course would henceforth be thrown open to women." This meant access to all the educational privileges enjoyed by the men students. The first regular student to apply matriculated in medicine in 1879. Two others matriculated in medicine and one in Arts in 1880, and a fifth entered in Arts with honour matriculation in 1881; so that the first class of five ladies graduated in 1884. The number of regularly matriculated women students entering for degrees has steadily increased, until now there are one hundred and thirty-seven registered lady students, one hundred and ten of whom are in attendance, and the remainder studying extra-murally.

In 1881 the Senate of Toronto University refused to allow women to attend lectures in the College, though they permitted them to take the first-year work extra-murally and pass the year examinations. On an appeal to the Legislature in 1883 the doors of Varsity were opened to women with all the privileges, and since then ladies have attended in increasing numbers.

The women students have from the first taken a high average standing in classes. In several departments they have been repeatedly sessional tutors, particularly in Moderns and History. The great majority of the women students take Moderns, History and English and Literature, partly owing to a natural liking, and partly because in these subjects there is the best prospect of securing a position in high schools or ladies' colleges after graduation.

When women first became registered students there were in the college only two societies, the Alma Mater and the Y.M.C.A. There were also but two yearly social functions, the conversazione and the medical dinner! The passing to and fro of women students in the university halls was at first such a novel phase that there was little or no association between the men and women students. Later the

year meetings, At Homes, Freshmen's Receptions, Conversaziones and the like, have changed all that.

The women students in the first years formed a Sunday Bible class, which at one time was conducted by the late Rev. Prof. Mowat and sometimes by the late Rev. Dr. Bell. This became the Y.W.C.A. of Queen's. In a few years a society to take charge of the general interests of the women students was formed, and was named the Levana Society. These two societies are still flourishing and give a very desirable part of the training received in the University. The women students are now also members of the Alma Mater Society.

It is difficult for those now in full possession of the privileges of university education to realize the cost and time of its evolution. I think it was Napoleon who said, "Let me educate the mothers of a nation and the rest may look after itself." Some believed that to educate women was one great means of developing the race; others saw in it simple justice. But there were many who saw in the proposal only an upsetting of established law and order. As one writer in the *Quarterly Review* put it, at the time of the establishment of Girton College, "There is no doubt that this sort of woman will not be popular with men." He goes on to say that this new college might have his approval if the students were taught to sew, teach, keep house, read aloud, make their own dresses and be helpful at mission working parties. Indeed it had often been said that women educated at college would not be able to get husbands. Nowadays the same style of critics claim that college women are not inclined to marry. It is sometimes argued that because a certain percentage of women graduates have not married, the higher education of women is against the best interests of the race. Probably if the same investigation were applied to any other set or class of women as large a per cent. would be found unmarried. This would certainly be the case in Britain. There is at least one thing we may expect of college women, that as a rule they will not be driven into that last refuge of helplessness—marrying for a home.

It is noticeable in our country that the average age of matriculants among girls is lower than in the Old Country. Whether this is due to our educational methods, or whatever the real cause, it is perhaps to be regretted. It may be deemed advisable some day to set an age limit for entering the university. The spirit of the university—that spirit of freedom which in mature minds begets the feeling of responsibility—cannot be put on like a gown when a young girl steps from the high school, where she has been under many rules and restraints, into the university. The frivolous student, if a man, is readily overlooked, but not if a woman. Every college woman must live up to the expected level or all her associates are apt to suffer. Again, in the case of the men students, there are always sufficiently large numbers of seniors who, with the weight that seniority gives and the established machinery of the college courts, can suppress the objectionable. The difficulty is much greater for the senior women students since they have not yet the machinery or the traditions. There is no doubt, however, that the women in the university are proving themselves equal

to the shaping of their college life into that steadily-increasing good thing to which so many have been looking forward through the last quarter of a century.

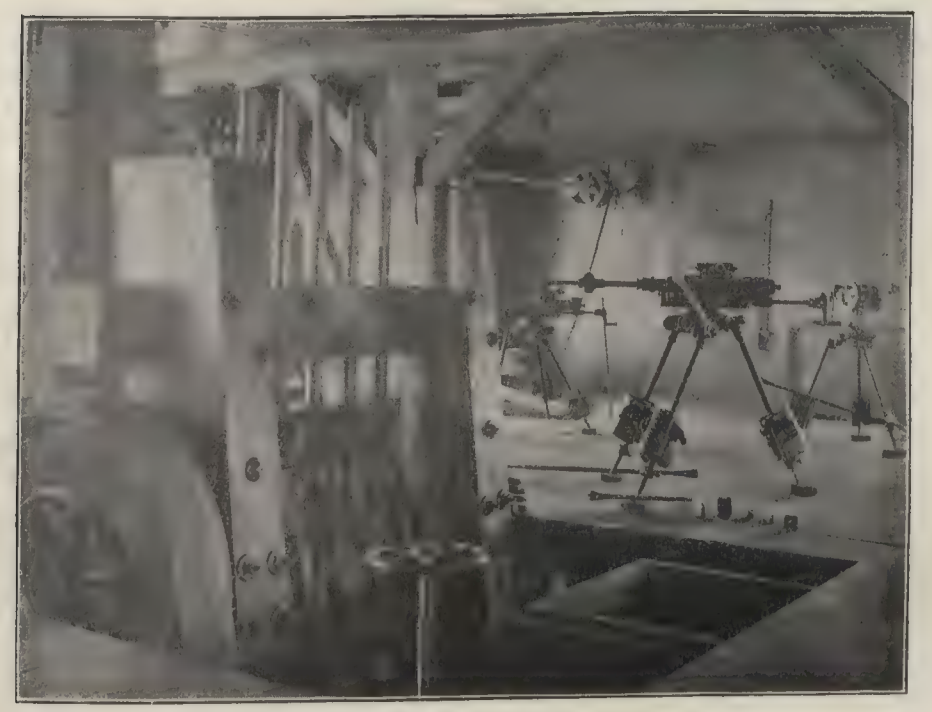
THE SUNDAY AFTERNOON SERVICES.

Queen's University claims that it has always sought to manifest a broad unsectarian spirit, that it has welcomed real help from all quarters and has endeavoured to minister to the needs of all classes; but this is quite consistent with a frank and cordial recognition of the supremacy of true religion and the beauty of united reverent worship. The services held in Convocation Hall on Sunday afternoons are one of the symbols of this two-fold view, one of the forms and occasions through which we recognize, in a special manner, that our service to God and our ministry to men are two sides of the same life.

These services have been held during many years, and, so far as the addresses are concerned, have assumed a variety of forms; the Principal has reviewed the life of the university and set forth, in inspiring tones, the high aspirations which should stir the soul of every thoughtful student; a professor of philosophy has stated in clear, calm language the unity of life and the all-pervading power of that intelligence which gives meaning to all arts and science; the representative of another important department has shown that the literature of a people, in reflecting its life, indicates the spiritual dangers by which it is threatened and the nobler ideals which are seeking expression amid the chaos of opposing interests and conflicting passions; or it may be that the speaker was a minister who delivered a sermon making a special appeal to young men and keeping close to the central theme, the love of God manifested in Jesus Christ. Thus it can be seen that in the course of years there has been great variety in the subjects treated, and in the character and occupation of the men who have occupied the platform. The whole body of students has had opportunities of listening to words of counsel from professors whom they did not meet in the course of their regular studies, or from distinguished strangers, men who had made their mark in church work or university life. In the opening year of the present century a continuous course was given reviewing the progress and presenting the outlook in all the important departments of knowledge; advances in surgical science as well as contributions to biblical criticism were welcomed as part of God's great varied and evergrowing gift to the human race. Some people may think that such a course is suitable for Sunday afternoon if it does not come oftener than once in a century. As there is now no space to discuss that point one need simply say that we find suggested by it an important part of our task, namely, to bridge the gulf that often exists between the "sacred" and the "secular" by showing that the pursuit of truth in every sphere is a sacred occupation demanding honest work in a reverent spirit.

There is no need for us to enter into competition with Churches and Christian associations of various kinds; a few vigorous services at the beginning and close of each session will serve the real purpose of showing our sympathy with Christian worship and the unity of purpose which lies

behind our varied work. But if they were ever needed for that purpose the need is greater than ever now,—when the number of students is larger and we carry on our work in different buildings. Surely it is good for Science and Arts, Theology and Medicine to meet together, acknowledging that the Lord is the maker of them all. Queen's is scarcely likely to turn out "goody" men, but woe to her if she does not send forth good men in the strong, broad sense. All her noblest traditions and most precious privileges would rise up in judgment against her. If a university is not in its own small way "a power making for righteousness," then it is unworthy of the battles that have been fought and the sacrifices that have been made for it. An occasional hour for prayer and praise together may seem to some of us a light thing, but it may be made a symbol of that "communion of saints" for which the noblest souls have longed so earnestly. Let the students, then, remember that these services are for them and that through their support and sympathy this may become, even more than in the past, an hour of worship that inspires and purifies.



STAMP MILL AND DRILLS (Mining Laboratory).

QUEEN'S QUARTERLY.

A very important organ through which the higher intellectual life of the university seeks expression is the *Queen's Quarterly*. How important even those familiar with the excellence of its contents scarcely realize. The *Quarterly* was the first magazine of its kind in Canada, but inspired by its example and success, similar publica-

tions have since appeared at several university centres. Established in 1893, and therefore now in its twelfth year, the *Quarterly* has already entered upon the second stage of its development. Its founders intended it to be merely the general literary organ for Queen's University and its constituency. From the beginning indeed the attempt, however modest, to provide a vehicle for free and fearless discussion, and the apparition, so rare in Canada, of disinterested criticism, was bound to attract outside attention, but to Mr. Harpell, the present business manager, at once a University graduate and a keen man of affairs, is principally due the credit of seeing and seizing the possibility of making the *Quarterly* more widely influential. His reorganization was affected two years ago. The size of the magazine was almost doubled. Illustrations were introduced. Its pages were opened to writers on matters less purely academic in character—articles on Canadian industries and practical affairs not more remarkable for their information than for their clear and vigorous expression which is itself style. The literary management was placed in the hands of an editorial committee of four chosen from a larger advisory body representing the principal Colleges and Universities of the country. The result has been a remarkable increase in the list of subscribers.

In becoming popular the *Quarterly* has by no means ceased to be scholarly, as a glance at the list of contributors to the October number will show. When men like Edward Caird, master of Balliol, who rarely contributes to a trans-Atlantic publication, do not disdain to become contributors, there need be no fear of the *Quarterly's* standing among men of taste and scholarship. From the first indeed the *Quarterly* has been fortunate in its writers and in the general excellence of their quite gratuitous contributions. Many of its articles, particularly its able and disinterested comments on current events, have given rise to a demand which the original issue was inadequate to supply, and which could be met only by offprints. In its present happy combination of high standard and comparative popularity the *Quarterly* promises well for the future action of university thought and culture on national life.

QUEEN'S MEDICAL QUARTERLY.

Queen's Medical Quarterly is owned and published by the medical faculty and is sent gratuitously to every member of the profession in Eastern Ontario, to medical graduates everywhere, and to all undergraduates in the faculty. It publishes only original articles.

For seven years it was known as the *Kingston Medical Quarterly*, published by a committee consisting of Drs. Anglin, Garrett, Mundell, Wood, Ryan, W. T. Connell, and J. C. Connell, with Dr. Herald as editor-in-chief.

Most of the articles were written by members of this committee, and it was financed by these gentlemen out of their own pockets.

In October, 1903, with the beginning of Vol. VIII, the faculty took possession of it in consideration of its value as a legitimate advertising medium and as a means of communicating with the profession, especially with the medical graduates. It is not as pretentious as *Queen's Quarterly*

but it is trying to do for the medical faculty what its relative is doing for the rest of the university. Its editorials have frequently been devoted to discussing the medical legislation of the Province and of the Dominion, and generally to good purpose.

The committee in charge at present is Drs. Garrett, Herald, J. C. Connell, W. T. Connell, and Williamson, with Dr. Richardson as managing editor.

Contributions are gladly received from members of the profession and any name will be placed on the mailing list.

Its circulation at present is twelve hundred copies.

QUEEN'S UNIVERSITY JOURNAL.

The JOURNAL is published entirely by the students themselves. Both the editing and financing are done by regularly registered students. Every member of the editorial staff gives his services without remuneration, and, as yet, without recognition by the Senate.

The purpose of the JOURNAL is to supply the students in the various faculties with information regarding the student life in the different departments and to keep the whole student body in touch with the life of every part. To accomplish this end some common, unifying medium is absolutely essential in a university of the magnitude of Queen's. Where students are separated in class-rooms and buildings, it is highly important to everyone to touch the life of all departments; on the one hand to rub off the rough angles of mere practical utility with a little of the leaven of idealism, or on the other hand, to crystallize the lofty ideals of literature and philosophy into something tangible and serviceable, by an occasional reminder from practical science. Besides this, THE JOURNAL seeks to meet to some extent the needs of the outside reader. About half of our subscribers are graduates. Alumni and friends of the College find that THE JOURNAL enables them to keep in touch with the changing life and progress of the University as nothing else can do. Many of our graduates have continued their subscriptions for upwards of twenty years and are most enthusiastic in their praises of THE JOURNAL.

We have been told, through the columns of some of our worthy contemporaries, that QUEEN'S JOURNAL ranks high among college publications. Our aim has been to issue a first-class college paper. Our idea of college journalism differs, it is true, from that of many of our contemporaries, yet our publication serves our purpose so efficiently that we have deemed it unwise to alter its character. THE JOURNAL is issued fortnightly during the college year and consists of 12 numbers. It was first published in 1872. The growth of THE JOURNAL has in its own way kept pace with the expansion of the University and now greatly exceeds in size and cost the publication of thirty years ago. Last year the total cost of publishing THE JOURNAL was $1,616, and it will doubtless reach a similar figure this year. Advertisements are yearly becoming easier to obtain as business men see that is it a splendid medium by which to reach a certain class of very valuable custom. The wide-awake business man builds for to-morrow as well as for to-day; and he knows that the students of to-day are going to be purchasers to-morrow.

STUDENT ORGANIZATIONS AND METHODS OF GOVERNMENT.

The student organizations of Queen's are not just like those of any other university and perhaps in no university do such organizations play a more important part in creating and preserving a healthy, hearty college spirit. Of the existence of such spirit there can be no denial, and the question is asked again and again, "What makes these Queen's people so enthusiastic about their College?"

A partial answer may be found in the existence and workings of Queen's most important students' organization, the Alma Mater Society. This includes in its membership all students of the university, both men and women, undergraduates and post-graduates, whether in Arts, Science, Medicine, Theology, Law or Mining. It is the official organization of the students and serves as the medium of communication between them and the Senate. At its meetings, which are held every Saturday evening, is transacted all the business that concerns the general interests of the student body; correct parliamentary procedure is most rigidly insisted on and the training men receive in such matters is of no mean order.

But the Alma Mater Society serves a more important end. Modern education seems to necessitate specialization, and a danger of specialization is that a man may lose sympathy with all those not engaged in his particular line of work. But in Queen's this danger is rendered less serious by the existence of the one central student organization. In its meetings men from every faculty meet and debate freely. So there is engendered a feeling of mutual respect, sympathy and toleration, and it is safe to say that no true "Alma Materist" can be a mere narrow specialist. In no small measure the unity of college life at Queen's may be ascribed to this cause.

Appointed and controlled by the Alma Mater Society are the Athletic Committee, the Queen's University Journal Staff, the Musical Committee and the Debate Committee, the several duties of which bodies are indicated by their names.

But in addition to matters of general interest there are necessarily affairs that pertain more particularly to each faculty. So there have come into existence the Aesculapian, Engineering and Arts Societies. These meet regularly and transact the necessary business, though they never in any sense appear as rivals to the one central society.

Perhaps the chief interest of these secondary societies lies in the fact that each has its own concursus or court for the trial of offenders against law and order. The childish custom of "hazing" has long since vanished from Queen's,—on the contrary the Freshmen are warmly welcomed and introduced to their fellow-students and to their professors at the annual Freshmen's Reception, held under the auspices of the Y.M.C.As. and Y.W.C.A.—and every man, whether Freshman or Senior, is treated with respect so long as he proves himself worthy of such treatment. But occasionally some one appears who fails to comport himself with the dignity that might be expected from a college man, and for such cases the students

have special organizations, the concursuses (if the word may be allowed), which have the moral support of, and official recognition by, the Senate of the university. These concursuses consist of judges, attorneys, constables, etc., and though an element of the burlesque enters in, and though the punishments inflicted are usually—though not always—merely nominal fines, yet the disgrace of being "courted" is such as to prove an efficient restraint.

Another phase of college life is ministered to by the Young Men's Christian Associations of the university. These organizations in Arts and Science, and in Medicine, include in their membership many, perhaps almost all, of the strongest men of the various faculties. More than one student remembers gratefully the night when, a stranger in a strange city, he found himself met at the railway depot by the red-badged committeeman who was there to welcome him and give him directions and assistance. The meetings are held in the college every Friday, the discussions are always vigorous and stimulating, and the attendance is perhaps not excelled in any college Y.M.C.A. in America.

Other organizations are the Queen's University Missionary Society, the Philosophical Society, the Dramatic Club, the Political Science and Debating Club, the Glee and Mandolin Clubs, as well as the athletic clubs controlled by the A.M.S., viz., the Rugby Football, Association Football, Hockey, Tennis, Basketball and Track Clubs. But these there is not space to describe and their names must suggest the functions they perform.

On the third floor of the Kingston Building is a cozy, cheerful retreat known as the Levana Room, where the college girl may spend a pleasant hour in study, in reading the magazines or papers, or in delicious idling. Its pretty furnishings blend with the soft green tinting of the walls, and each year adds something to our store of pictures and statuary.

The object of the Levana Society is to bring the women students of the university more closely into touch with one another, and to develop their literary and aesthetic tastes. Its principles guide them over the shoals of mere mechanical learning and past the sharp rocks of giddy pleasure. It meets once every two weeks and enjoys considerable variety in its programmes. Now a social evening is spent, again a debate is arranged, a paper is read, or even amateur theatricals attempted. Occasionally some of the professors give talks on art or literature.

The girls' Glee Club is under the direction of the Levana Society and affords an excellent opportunity to develop latent vocal power. Although but recently organized it is in a flourishing condition.

The Gymnasium classes have now been carried on for a year with marked enthusiasm. The games of basket ball are interesting and entered upon with spirit.

The Y.W.C.A. is another very important society to the Queen's girl, and it is pleasing to notice that the two main organizations are not alien to one another in spirit, but on the contrary, are mutually helpful. The same girls who are prominent in promoting the welfare of the Levana are generally to be found on the list of active members of the Y.W.C.A.

WANTED—A GYMNASIUM.

The vicissitudes in the life of "the gymnasium" have been so disheartening that it would have ceased to exist long ago if its existence, even in a languid state, had not been essential to the students.

In the eighties Mr. W. Rankin, a man of zeal and great executive ability, came to the University, and after some difficulty succeeded in uniting, under the control of a committee appointed by the Alma Mater Society, the various sports indulged in by the students. The gymnasium fell under a special committee also appointed by the Alma Mater Society. The change wrought was most beneficial as it gave continuity to the efforts of the students, whereas under the old system each year found a fresh committee in charge that knew little or nothing of what its predecessor had done or planned.

The gymnasium, as I first remember it, was in the basement of the then Arts building, equipped with such simple apparatus as the limited funds of the students permitted. The next home of what little apparatus remained was in a large room at the rear of the medical building adjacent to the dissecting room, a place totally unsuited for a gymnasium. University expansion and the unsuitability of the place made another change necessary and this time the attic of the Carruthers Hall was the new place of abode. The jarring incidental to the boisterous gymnasium work of the students was more than the ceilings below and the nerves of the professors could stand, and once more the gymnasium was without a home. About this time Principal Grant conceived the idea of combining in one building a work-shop for the School of Science and a Gymnasium. His intention was to use the basement of the building for baths, lockers for the football and hockey teams and the general heating of the building. The first floor was to be given over to the work-shop, and the third floor was to be available for a gymnasium. It is a large house that will hold two families happily, and in this case the rule had no exception. The students in the work-shop complained of the intolerable noise and jarring, those using the gymnasium of the lack of freedom in the enjoyment of what they considered their own property. That part of the building given over to a gymnasium was not suitable for the purpose for which it was constructed. The great development of indoor games, such as basket-ball, tennis, babminton, &c., necessitated a building of more lofty proportions. As a gymnasium in the narrow sense of the word it would have been quite satisfactory, but in comparison with the gymnasium of the city Y.M.C.A. it aroused only discontent. This, however, was not of long duration, for again university expansion converted the entire gymnasium into a work-shop.

As a portion of the money that was subscribed for the building had been given on the understanding that it was to be a gymnasium for the students as well as a work-shop, Principal Grant saw the necessity of dividing the amount that had been subscribed and placed $1,000 or thereabouts in the hands of the treasurer to form the nucleus of a new gymnasium fund. At a meeting of the University Council a committee was appointed to secure further funds, the idea being to raise $1,000 in Kingston and to ap-

peal to the other friends of the university for further assistance. After considerable effort a fund of some $3,000, including the original $1,000, has been acquired, but the great enlargement of the university in the past ten years makes it inadequate, except as a beginning, for the construction and equipment of a building suitable to the needs of the students. Such a building should have baths of all descriptions in the basement, and, if the funds would allow, a swimming pool. On the main floor should be rooms for students' meetings, reading rooms, &c., such rooms as would, for example, make it the general gathering place, and the gymnasium proper. A building with this accommodation should measure, let us say, 50x80 feet, and be sufficiently lofty to permit of all indoor games being played, and the construction of a running track around the wall, and trapeze, ladders and other overhead gymnasium apparatus. There is no use in doing things by halves, better far get a substantial building of sufficient size and of moderate equipment, leaving to future students the responsibility of improving and adding to the equipment, than at the beginning have a small and shabby building perfectly equipped.

Some may say that a gymnasium is not a requirement of college life, that by walking and outdoor sports all the exercise necessary may be obtained by the students. These must forget that of the large number of students now at the university comparatively few are able to take part in the football or hockey practices, and it is with deference submitted that the benefits to the health and physique of the students obtained at the Military College and other colleges where they have gymnasiums justify attention to this side of student life. This is much more necessary in the case of the girls in attendance at the university who are debarred from participating in the more active sports of student life, but who could and would, by the setting aside of the gymnasium for certain hours on certain days for their classes, receive incalculable benefit.

From the point of view of the members of our football, hockey and track teams, the erection of a gymnasium is imperatively demanded, if Queen's is to maintain her position in College athletics. McGill and Varsity have each its gymnasium, and it is surprising that Queen's, with the little training of her teams, does so exceedingly well in competition with teams from these colleges. What would she do if proper gymnasium facilities were available?

At least $7,000 is needed to do the work properly. This amount should easily be raised if a few of our well-to-do graduates would lend their assistance, and from the enthusiastic support given towards the erection of Grant Hall it seems probable that in a short time the college campus will be graced by a gymnasium that will do credit to the University. The matter cannot rest much longer in abeyance, and it is to be hoped that the graduates, who have succeeded in accumulating somewhat of this world's goods and who, in their college days, felt the want of a gymnasium, will by their assistance give the scheme their hearty support. "He who gives quickly gives twice" was a motto of the late Principal.



INTERIOR OF GRANT HALL (looking up the east ambulatory).

QUEEN'S AND THE TEACHING PROFESSION.

Queen's has never forgotten that she has a duty to perform to the teachers of the country, as she has to the lawyers, doctors, ministers and engineers. The teachers' Junior Leaving examination has for years been accepted as the equivalent of matriculation for all subjects common to the two examinations. At the present moment special arrangements are being made to encourage the teacher, holding the Junior Leaving certificate, to look forward to a university degree. Moreover, advanced courses are laid down which conduct at once to a degree and to non-professional qualification to teach in high schools. "Extra-mural" courses are of special advantage to teachers seeking to improve their position. Whatever barriers have been raised between university and public school Queen's has sedulously aimed to remove, with the object of raising the status of the teacher into a real profession. Wherever other forces are at work in the same interest Queen's has been glad to co-operate. Approval of the new regulations recently issued by the Department was at once given, so far as they aimed to increase the efficiency and self-reliance of the teacher and the dignity of his vocation. Where exception was taken, as, for instance, to the elimination of Latin from the compulsory subjects on the Junior Leaving examination, it was on the two-fold ground that it deprived the public school teacher of necessary knowledge and tended to sap his ambition. Efforts, whether by special courses or summer schools, to weld more firmly together university and public school, have not only been countenanced, but have in some cases originated here. It is due in part to the interest taken by Queen's in the rural school teacher of Ontario that an important experiment has just been completed in connection with the County of Frontenac Model School in Kingston. *Queen's Quarterly* has freely given space to articles on education, and already reaches a large number of teachers. It is a pleasure to learn that a well-wisher of the magazine has decided to place a copy in every public school in the County of Frontenac. If every school house in the Province had a copy another barrier between the college and the rural school would be removed, and the influence of the university on the children of the farm would be distinctly appreciable.

The existence of an independent, or at least semi-independent, university like Queen's in Ontario has been a constant benefit to the Department of Education. Upwards of twenty per cent. of the teachers now in the High Schools and Collegiate Institutes received their training here. And apart from that the free development of Queen's has resulted in a type of college which is a positive enrichment of the educational life of the Province and the Dominion. No one will suggest that the growth of Queen's has been a menace to the Ontario educational system in any respect. Only here and there is now heard a voice or rather a faint echo in behalf of a centralization, which would be almost certainly lacking in local independence, self-help and the power to initiate reform. Indeed one of the most conspicuous merits of the new departmental regulations is its manifest desire to decentralize just as rapidly as different localities are prepared to accept responsibility.

ESPRIT DE CORPS AT QUEEN'S.

Not long ago the learned Principal of one of our Theological Colleges said laughingly at a gathering of Queen's Alumni that his ears were tired of being assailed by proclamations of the loyalty of Queen's men, much, one might think, as the Athenian citizen who black-balled Aristides was tired of hearing him called the "Just." Not that Aristides was not just, or the graduates of Queen's not loyal, but that it was better to assume that fact, and inquire into its cause. Queen's men are not, indeed, inordinately addicted to boasting, but let us take the hint, and ask why they believe in their Alma Mater.

In the first place they have helped to build it, not in the lofty sense in which every real graduate is a living advertisement of his college, much as good goods sell themselves, but in the sense, narrower if you like, that interest is often in direct proportion to toil and sacrifice. The casual boy or girl on the street is somebody's child; the log-house you catch a glimpse of from the train is the old homestead for some one. In either case the object may be "an ill-favoured thing," but yet it is, as Touchstone says of the lady of his choice, "mine own"; and that makes all the difference. The College is thus for the graduate a personal matter, a "bit of him," as it were; if anything untoward happened to it, there would be in him a physical shrinking, such as might be caused by a bereavement.

But further, it is not too much to say that the graduate of Queen's thanks the university for making him over again. His course at college is the most decisive period of his career. The well-worn phrase that a college is an Alma Mater is for many a graduate of Queen's a literal fact. The student, when he comes under its influence, steps out on the platform of another life, or, to drop metaphor, is furnished with a new standard to apply to himself in his dealings with others. Perhaps the process of regeneration is a steep and thorny road, but the end is a well-equipped and well-ordered mind. Just as a student looks forward to going home for his holidays, and as the traveller in a foreign country is glad to speak of returning home to the land of his birth, so the typical graduate of Queen's continues to think of his college as a "jolly home," and the metaphysical spankings he received from the hand of his Alma Mater, pluckings, criticisms, and what not, have only imprinted the college more indelibly on his memory and affection.

This feeling is brought to a focus, it may be, in connection with some member or members of the college staff. Everyone knows how intimately blended in the mind of all the graduates and friends of the university were Queen's and Principal Grant, and there are on the roll-book of Queen's not a few other names worthy of honourable mention. And, besides, what suggestions regarding the great men of all time, in the different paths of literature, science, philosophy, art, politics, history and religion, can be traced back to the work of this or that college class, suggestions which have done something to transform one or more of the "mighty dead" from a name into an acquaintance, or it may be, an ideal. One must, it is true, wrestle till the break of day (that is, study long and hard), if he is to extort from a genius the gift which it is

in his power to bestow. But the satisfaction of acquiring a treasure, of which one cannot be deprived, which moth and rust cannot corrupt, is worth the trouble.

A single word must be given to the quite unusual and complete way in which students of all faculties meet together in their different societies and by a process of radiation and absorption widen one another's intellectual and social horizon. Chasms which separate the scholar and man of business, pulpit and pew, clerk and client in real life are all bridged here, and remain bridged, so that the university is greatly assisted by the interior economy of student life in its work of turning out not mere professional men on one side or mere practitioners of whatever sort on the other, but genial all-round men. This mutual give and take belongs to the atmosphere of Queen's.

"All this and more comes flocking," as we meditate on what we mean by esprit de corps at Queen's, and thus it ceases to be a surprise, though it does not cease to be a satisfaction, that graduates are determined to maintain their Alma Mater in a state of active efficiency, so that it may be to their successors all that it was to them.

BOTANY.

The botanical department of the university occupies the larger part of the first floor of Fleming Hall. One room is fitted up simply for a lecture room and three others are devoted to laboratory work. The pass class-room is furnished with tables on which specimens of plants are placed for examination. A number of beautiful models of flowers purchased in Paris fill a case against one of the walls, while on the other walls are displayed sets of botanical charts, some made by Professor Dupuis. One honour class-room is furnished with cases containing some thousands of duplicate specimens for the use of the class, and also with botanical charts and diagrams, and a tap with its shelf. In the other honor laboratory, tables are so constructed that four students can be accommodated at each, and are provided with drawers for books, microscopes, &c. A large collection of the lower classes of plants, such as algae, fungi, grasses, &c., is provided for the use of the class. Chemical materials for experimental work are kept here, and all practical work in histology and physiology is conducted. Two sides of the room are furnished with taps and glass vessels of different kinds for the preservation of fresh water algae, and for experimental work. Here also the necessary apparatus and materials for microscopic examination are provided. The college herbarium contains over 30,000 specimens, representing the flora of Canada and the North Eastern States, with a large number from Europe, Australia and India. The private herbarium of the professor represents very fully the flora of the Maritime Provinces, and the United States, and also contains large collections from Europe, Western Asia, Southern Africa, Australia and Tasmania, embracing over 50,000 sheets of mounted specimens. Many thousands of duplicates, furnished by students who have won the Gowan prize, are preserved for future use and for purposes of exchange. A large conservatory for the cultivation and preservation of living plants is attached to the honour laboratory.



BOARD OF TRUSTEES.

Retire April, 1909—R. Vashon Rogers, B.A., LL.D., K.C., Kingston.

Retire April, 1908—Rev. M. Macgillivray, M.A., D.D., Kingston; Rev. John Mackie, M. A., D.D., Kingston; Rev. Robert H. Warden, D.D., Toronto; G. M. Macdonnell, B.A., K.C., Kingston; Hugh Waddell, Peterboro; John McIntyre, M.A., K.C., Kingston; Donald M. McIntyre, B.A., Kingston.

Retire April, 1907—Rev. W. T. Herridge, D.D., Ottawa; Rev. D. R. Drummond, M.A., St. Thomas; Rev. J. Edgar Hill, D.D., Montreal; Sheriff Maclennan, B.A., Lindsay; Sir Sandford Fleming, K.C.M.G., LL.D., Ottawa; D. B. MacLennan, M.A., K.C., Cornwall; P. C. McGregor, B.A., LL.D., Almonte.

Retire April, 1906—Rev. Thomas Wardrope, D.D., Guelph; Rev. Robert Campbell, M.A., D.D., Montreal; Rev. E. D. McLaren, M.A., D.D., Toronto; James Douglas, B.A., LL.D., New York; And. T. Drummond, B.A., LL.D., Toronto; Hon. E. H. Bronson, Ottawa; Matthew Leggat, Hamilton; George Gillies, B.A., Toronto.

Retire April, 1905—Rev. G. M. Milligan, B.A., D.D., LL.D., Toronto; Rev. Robert Campbell, D.Sc., Perth; Hon. Mr. Justice Maclennan, LL.D., Toronto; Francis H. Chrysler, B.A., K.C., Ottawa; J. Roberts Allan, Ottawa; John Charlton, Lynedoch; H. A. Calvin, M. P., Kingston.

Hon. Mr. Justice Maclennan, LL.D., Chairman; Geo. Y. Chown, B.A., Secretary-Treasurer.

The Annual Meeting of the Board will be held in the Senate Chamber on the evening of Wednesday, April 26th.

UNIVERSITY COUNCIL.

The Council consists of the Chancellor, the Trustees, the members of the Senate, and an equal number of elective members.

The Chancellor is elected by the Council, except when two or more candidates are nominated, in which case the election is by registered graduates and alumni. He holds office for three years, and, as highest officer of the University, presides at meetings of the Council and Convocation, and at statutory meetings of senate. In his absence he is represented by the Vice-Chancellor.

Of the elective members eight retire annually, except in every sixth year, when ten retire. Successors are elected by registered graduates and alumni. Retiring members may be re-elected.

The Council has power to elect five trustees (one trustee retiring annually); to discuss all questions relating to the College and its welfare; to make representations of its views to the Senate or the Board of Trustees; to decide on proposals for affiliation and to arrange all matters pertaining to the installation of the Chancellor, to its own meetings and business, the meetings and proceedings of Convocation, and the fees for membership, registration and voting.

Convocation for the conferring of degrees, etc., will be held upon Wednesday, April 25th, 1906.

ELECTIVE MEMBERS IN THE ORDER OF THEIR RETIRING.

Retire 1910—John Marshall, M.A., Kingston; J. R. Layell, B. A., Smith's Falls; Rev. James Carmichael, B.D., King; W. A. Logie, M.A., LL. B., Hamilton; Judge Fraleck, B.A., Belleville; R. H. Cowley, M.A. Ottawa; R. S. O'Loughlin, M.A., New York; Rev. W. W. Peck, M.A., LL.B., Napanee.

Retire 1909—Francis King, M.A., Kingston; W. F. Nickle, B. A., Kingston; Rev. R. Laird, M.A., Vancouver; Rev. N. Macpherson, M.A., B.D., Indianapolis; Rev. D. Strachan, B.A., Brockville; Andrew Hayden, M.A., Ottawa; Rev. James Binnie, M.A., B.D., Tweed; D. D. Calvin, B.A., Kingston; J. H. Mills, M.A., Waterford; T. H. Farrell, M.D., Utica, N. Y.

Retire 1908—R. V. Rogers, K.C., B.A., LL.D., Kingston; H. A. Calvin, M.P., Kingston; J. M. Farrell, B.A., Kingston; R. J. Maclennan, B.A., Toronto; R. M. Dennistoun, B.A., Peterboro; E. B. Echlin, B.A., M.D., Ottawa; Rev. J. K. Macmorine, M.A., D.D., Kingston; Geo. W. Mitchell, M.A., Cobourg.

Retire 1907—A. G. Farrell, B.A., Smith's Falls; W. L. Grant M.A., St. Andrew's College; Rev. E. D. Maclaren, D.D., Toronto; H. M. Mowat, B.A., LL.B., Toronto; H. R. Duff, M. D., Kingston; Geo. Bell, B.A., Toronto; C. F. Hamilton, M.A., Ottawa.

Retire 1906—R. S. Minnes, M.A., M.D., Ottawa; Rev. J. Hay, M.A., B.D., Renfrew; P. C. McGregor, B.A., LL.D., Almonte; Rev. James Wallace, M.A., Lindsay; Jas. Douglas, B.A., LL.D., New York; E. R. Peacock, M.A., Toronto; J. McD. Mowat, B.A., Kingston; Rev. A. H. Scott, M.A., Perth.

Retire 1905—D. M. McIntyre, B.A., Kingston; Rev. J. Cumberland, M.A., Stella; Rev. J. D. Boyd, B.A., Kingston; Gordon W. Mylks, M.D., Kingston; Rev. F. G. Kirkpatrick, B.A., Lombardy; J. A. Hutchinson, K.C., Brockville; Eliza S. Fitzgerald, M.A., Cornwall; G. F. Henderson, B.A., Ottawa.

OUR IMMEDIATE NEEDS.

THINKING of "Queen's of to-day," and thankful for the progress of the past, we must recognize also the needs of the present. The fact that within the last eleven years the number of students has been more than doubled, while the teaching staff in Arts and Theology has not been greatly increased, indicates the most urgent present need.

It has long been desired to have a Chair in Oriental Languages (including Hebrew), added to the Arts department. This would provide for those languages where they properly belong, and would enable the professor of Hebrew and O. T. Exegesis to give his entire attention to the latter subject, along with O. T. Theology. It may be added that the Theological department should further be strengthened at an early date by dividing the subjects of Apologetics and N. T. Exegesis, constituting the former into one Chair, and the latter along with N. T. Theology into another.

It is not immediately necessary to add any other new Chair to the Arts department, but we urgently need a number of Assistant-Professors and other instructors in connection with existing Chairs. This is required not only in the interests of the students in attendance on the classes, but also of the extra-mural students, who carry on their work by correspondence. A number of public school teachers and others, who could not attend the university, have been enabled by this means to pursue their studies in Queen's, and while the instruction of these extra-mural students has been conducted with great care and faithfulness, it makes demands upon the staff that call for further assistance. The recent action of the Department of Education in regard to the study of Classics and Modern Languages in High Schools will almost inevitably make it necessary for the Universities of the Province to provide elementary instruction in those subjects, so that in each of them at least one assistant will be required, an Assistantship being estimated at $1,000 to $1,200. The subject of Political Science might well be divided into two separate Chairs if we could afford it, but we must have at least an Assistantship in connection with the present Chair, and an Assistantship also in connection with the Chair of Botany. Biology and Botany may be bracketed together as the minute and rudimentary forms of animal and vegetable life are closely allied, and we need an assistant who might render service in connection with these two subjects. We need also further assistance in our Mathematical department.

We may require to provide an Assistantship in connection with Philosophy, so that fuller provision may be made for post-graduate work in this department. At present there are two Fellows in Philosophy and the results of their appointment, as well as the experience of other universities, lead us to plan for the employment of Fellows in other departments. It is proposed that these shall be chosen from among the foremost students, that the Fellowships shall be prizes for efficiency, enabling students to carry on post-graduate work, and at the same time to render service as tutors and instructors. In this way promising men may be retained for a period of research work, while

through their services further assistance in teaching may be provided at very moderate cost. Two grades of Fellowships might thus be formed, a Senior, at $400 each, and a Junior at $250 each, per year. We should have one Senior and one Junior in Physics and in Chemistry, and also, as a substitute for the present tutorial instruction, in English Literature, Moderns, and Political Economy.

The class in English Bible should be permanently provided for by a Lectureship. At present this class is carried on by the voluntary service of two of the professors. It is well attended and is calculated to be very helpful to those who take it, the whole English Bible being gone over in a course of two years. $500 per year would be a very modest appropriation for this purpose, and if the Lectureship could be developed into a full Professorship so much the better.

As yet we are ill-off for Matriculation Scholarships. The design of such scholarships is to provide inducements and facilities for some of the brightest pupils of the high schools to take a university course. We already have a number provided through the kindness of friends, but we are in great need of more. At a low estimate we should increase our list by six scholarships of the value of $125 each, and ten of the value of $100 each. If these could be provided, it would be a most helpful stimulus to the high schools as well as a valuable aid to students at the commencement of their course when assistance is greatly required.

There is urgent need to have the salaries of a number of our professors increased, and we require for this purpose an addition of at least $3,000 to our present annual revenue; and the general services entailed by the increased number of buildings demand nearly a thousand dollars a year. The University is at present provided with spacious accommodation for class purposes, but, owing to the erection of the new buildings, the house formerly used as an Astronomical Observatory had to be taken down. We have not yet put up another, although arrangements have been continued for meteorological observations, but we should have a proper observatory which would cost at least a capital sum represented by about $400 a year.

Although we do not place a residence for girl students among the requisites to be met by our new Endowment, yet it would add very greatly to the welfare and working comfort of the young ladies if, in this respect, we were placed on a level with many of our sister universities. A gymnasium also would be a valuable and welcome addition to our group of buildings.

But we have already exhausted in this estimate our proposed additional revenue of $20,000 per year, although our attention has been confined to what seems to be absolutely necessary for the efficient work of the University. If any friend be able to endow a Chair, it is not necessary that he provide a new Chair; he may select some existing one, for the only two Chairs in Queen's to which any special endowment is attached are those of Biology and Political Science, and the endowment of an existing Chair with which the donor's name might be connected would release a proportionate amount of revenue for general purposes. Or, special benefactions that would greatly assist the University might be made by providing for some one of the proposed Assistantships, Fellowships, or Scholarships. Friends

who cannot extend so large a measure of aid may by the gift of $500 secure the privilege of nominating during their lifetime a student for exemption from class fees in the Arts department, while the donor of $100 has the privilege of nominating one student for such exemption during his full course of four years. Queen's lives through the liberality of her friends. They have not failed her in the past, nor will they fail her now.

—THE PRINCIPAL.

*COMMITTEE OF THE GENERAL ASSEMBLY.

(*Arranged under the head of Presbyteries.*)

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*See editorials.